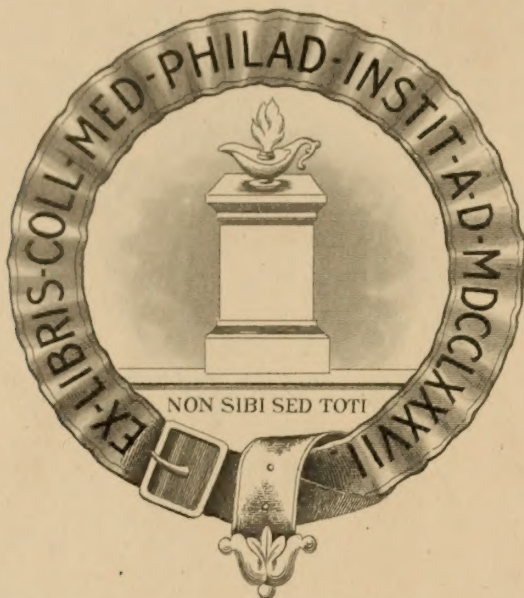




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BUFFALO MEDICAL JOURNAL

Yearly Volume 72

AUGUST, 1916

Number 1

ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Chronic Intestinal Stasis From the Viewpoint of the Internist.**

By CHARLES D. AARON, Sc. D., M. D.,

Professor of Gastro-Enterology in the Detroit College of
Medicine and Surgery, Detroit, Michigan.

Lane* employs the term "chronic intestinal stasis" to indicate such abnormal delay in the passage of the intestinal contents through a portion or portions of the gastro-intestinal tract as to result in the absorption into the circulation of a greater quantity of toxic or poisonous materials than can be disposed of by the liver or other protective organs. He believes this condition is due to the upright position of the trunk, which induces a prolapse of the viscera (gastroenteroptosis), and consequent faulty drainage. To resist this displacement, nature reduplicates certain peritoneal tissues, which become firmer and firmer until distinct bands are formed, holding up the terminal ileum and causing a kink with stasis and toxemia. It is assumed that the intestinal toxemia or the mechanical irritation caused by the tugging of the displaced organs on the mesenteries will result in the formation of pericolic membranes, bands, adhesions, folds, kinks and angulations of sufficient number to cripple the peristaltic function. The kinks occur at the duodeno-jejunal juncture, terminal ileum, cecal region, hepatic flexure, splenic flexure, and colon-sigmoid juncture. By surgical intervention he has succeeded in curing coincident pyorrhea alveolaris,

*W. Arbuthnot Lane. The Lancet. Dec. 21, 1912, page 1706.

**Oration delivered at the 41st annual meeting of the Alumni Association of the medical department of the University of Buffalo, May 30-June 2, 1916.

tuberculosis, arthritis deformans, nephritis, systitis, pyelitis, endometritis, salpingitis, exophthalmic goitre, skin diseases, colitis, endocarditis, epilepsy, neurasthenia, and a host of other diseases.

I dislike to appear wanting in appreciation of the great and valuable service which modern surgery is rendering to the human race, but I do wish to submit some convictions which have become strong in me, in view of the recent developments that have caught the fancy of practitioners and evoked expectations in the laity which I cannot help but deem as hazardous on the part of the former as it may turn out to be delusive on the part of the latter. I will not say what I have heard from many, that there is much unnecessary surgery nowadays, for that would be quite false and inappreciative of the obvious good which is done by conscientious and efficient men. Nor will I urge, as again some do, that operations are advised and performed under the stress of professional preoccupation and enthusiasm, for I have too high an opinion and from my own personal observation too clear a judgment of the profound scrupulousness of surgeons to want even a word of mine to go toward lending aid to the insinuation; but I do believe that not infrequently surgeons yield much upon a general theory, deferring to and following a name and a precedent, and thus exhibiting both the weakness of human nature and the fallacy of incomplete science.

I propose to speak of gastroenteroptosis under the new name chronic intestinal stasis, and of the futility of the operative treatment of it. I have nothing but respect, the highest respect, for the achievements of modern surgery. As its technic becomes more certain, its service for good will become incalculable. But because it is so fascinating and so wonderful in effect, the surgeon is frequently misled into urging it, and the patient into blindly trusting it. It is the internist to whom the patient, weak from his operation, comes in search of final relief. It is the internist who appreciates the fact that many an apparently successful operation entails serious disabilities which diminish the patient's efficiency and in many cases impair his health to such an extent that he never can resume his place as a man of service to the community. And very often it is the internist's conviction that conservative methods, slow but sure, would have served more reliably than operative intervention.

A Roentgen ray examination with the bismuth mixture may show a displaced stomach, a prolapsed colon, kinking of the hepatic or splenic flexures, spasms of different loops of the intestine, the presence of bands, membranes and adhesions; but such conditions do not imply that surgery is

inevitably necessary. So long as motility is not interfered with, there is no absolute indication for surgical intervention. A transverse colon can be displaced anywhere from its normal position down to the symphysis without interfering with motility. The cinematograph shows that such a displaced intestine can empty itself properly even if the angulations at the distal ileum and the hepatic and splenic flexures show absolute kinks. It has been proved that stasis is not due to an abnormal position of the intestine (kink, ptosis, or redundant colon) so long as there is no actual mechanical obstruction. What busy surgeon follows up these cases and knows just what becomes of them, other than that they left him after the successful operation? What does he know of the disabilities the patient has had to accept as the price of his recovery, disabilities which reduce his earning capacity and force him to change the whole trend of his life?

One of the operations to which patients are now frequently subjected unnecessarily is gastroenterostomy. To be sure, a gastroenterostomy, when indicated, brings about astonishing results, especially in the case of an obstruction of the pylorus. But no operation has been more abused and thus become the cause of more harm. Its use can never be justified as a cure for gastroenteroptosis and intestinal stasis. Besides this operation we find surgeons anchoring a displaced kidney, attaching the colon to the abdominal wall, suspending the stomach in a hammock made of the great omentum, plicating the gastrohepatic and gastrophrenic ligaments, suturing the gastrocolic omentum to the anterior abdominal wall, and resorting to many other so-called original expedients for the cure of kinks causing intestinal stasis. Others are sure that ileocolostomy, the short-circuiting of the ileac contents directly into the sigmoid, is the best treatment. It has been found that after this operation the entire colon may show a tendency to fill. To obviate this difficulty the operation of extirpation of the colon or colectomy is practised. This is not a simple operation; even in the hands of skilled surgeons the mortality is high.

The futility of these operations is clear when we recall that in over 90 per cent. of cases of gastroenteroptosis the position of the abdominal viscera is a normal conformation to the physical status of the body. Patients suffering from such a characteristic form do not respond to surgical intervention. It is a general condition of relaxation, which is not helped by extirpation or short-circuiting of any part of the colon. These patients develop into neurasthenics and suffer from nervous dyspepsia associated with gastric and intestinal atony. The anatomic dislocation of the organs is of minor importance compared with the pathologic condition of the digestive nerv-

ous system. It is to be hoped that with a better understanding of the pathologic anatomy of ptosis the **furor operativus** will be broken and yield to internal medicine.

Recent experimental work by Keith* explains the mechanism of intestinal movements, and seems to account for the production of intestinal stasis upon a physiologic basis. In his histological studies of the mechanism of the heart beat, he investigated different portions of the intestine of various animals in the hope of finding the mechanism controlling involuntary muscle. As a result of extensive research along these lines he discovered a nodal tissue intermediate between nerve and muscle and interposed between Auerbach's myenteric plexus and the smooth muscle of the intestinal wall. This intermediate tissue, consisting of branched cells in direct connection with both nervous and muscular elements, bears the same relation to the intestinal musculature as the primitive nodes and conducting tissues of the heart bear to the auricular and ventricular muscular masses. It possesses two distinct functions: one, the initiation and regulation of the muscular contractions in the segment of the intestine which it controls; the other, the power of conducting impulses which lead to the forward propulsion of the intestinal contents. Notable collections of this "nodal and conducting" tissue were found in the region of the cardia of the stomach, where it initiates gastric movements; near the ampulla of Vater, to control the movements of the pylorus and duodenum; a lesser collection near the beginning of the jejunum, exercising the same function over the greater portion of the remaining small intestine; in the region of the ileo-colic valve, to control the lower ileum and proximal portion of the colon; and others in the transverse, descending, and iliac colon, and in the rectum.

Not only do the anatomic sites and the demonstrable physiologic functions of these "nodes" explain the normal movements of the intestine, but it is obvious that a perversion of the function of any one of them is capable of giving rise to an inhibition of the forward progress of the intestinal contents, with resulting intestinal stasis. In the establishment of this as the physiologic explanation of the mechanism of the production of intestinal stasis, Keith* was able to demonstrate the presence of definite fibrotic and degenerative changes in this nodal tissue in segments of the intestine removed by Lane and others for the relief of chronic intestinal stasis.

Keith found that food passing along the alimentary tract is

*New York Medical Journal, Sept. 11, 1915, page 573.

*Arthur Keith. A New Theory of the Causation of Enterostasis. The Lancet, August 21, 1915, page 375.

propelled through a series of zones or segments furnished with their own pacemakers. There are two such zones in the heart—an auricular and a ventricular; the sino-auricular node is the master pacemaker. A block of imperfection in conduction may occur between these two zones of the heart, with the result that “back-pressure”—a venous stasis—is produced. Similar irregularities may occur in the nodal and conducting system of the alimentary canal. When they do occur we find them at the joints where one rhythmical zone or area passes into another. A block may occur where the esophagus joins the stomach; another where the gastric zone ends and the duodenal begins; where the duodenal zone passes into the jejunal, and where the iliac passes into the colic. A block may occur at any point of passage from a lower to a higher rhythm.

It is clear that to obtain an orderly propulsion of the food along the whole length of the alimentary canal these various rhythmic zones must be closely coordinated in their action; and this coordination means a complicated system of reflexes. Disturbance in any one segment upsets the rhythm in all the segments. We know it is a law of the intestine that distention of one part inhibits the action of the part below it. It is easy to see that disturbance in the excitability of the pacemaker of the cecum will be reflected to the lower ileum. One can therefore easily understand on the hypothesis of Keith how stasis in the colon may be followed by ileal, or stasis in the duodenum by gastric stasis, and how the disturbance of the conductivity or excitability of the rhythmic zone may ultimately give rise to stasis in the whole intestine. From this we are compelled to believe that the musculature of the alimentary tract is the sole propelling power in the intestinal wall, and that a defect in the intestinal musculature must play a part in the causation of chronic intestinal stasis. From his investigations Keith concludes that it is improbable that mechanical conditions or derangements of sphincteric action underlie the production of intestinal stasis, but that the true cause is the production of some “block” or disorder in the nodal and conducting system of the intestine analogous to the heart block and other similar disturbances of cardiac function. He does not accept Lane’s “drag, band and kink” theory.

Many cases of chronic intestinal stasis prove after operation to have been nothing but spastic constipation. The retardation in the evacuation of the bowel is induced by a spasm of one or more isolated loops of the intestine. These spasms occur most frequently at the hepatic and splenic flexures, sigmoid, rectum and anus. Enterospasm is brought about by an increased irritability of the autonomic nervous

system which may be due to neuropathic conditions associated with diseases of the abdominal viscera or pelvic organs or to vagotonia associated with neurasthenia and hysteria. The Roentgen ray plainly shows the contracted loop of intestine, and its constant presence leads one to believe it to be organic. When making a roentgenographic diagnosis, the use of atropine hypodermically is of great assistance in preventing the error of sending the patient to the operating table.

Some surgeons have reported the constant presence of demonstrable mechanical obstruction in cases of chronic intestinal stasis, while others of equal ability have frequently reported obstruction without any distinct mechanical factor whatever. An operation like that of colectomy is an extensive and dangerous one, and seems hardly justifiable in the treatment of such chronic joint diseases as arthritis deformans and of tuberculosis. It is surprising and a bit confusing to hear pretensions of cure of so many varied and unrelated diseases, such as the followers of Lane make with regard to the same remedial operation. There is a lack of sense of proportion in the connection which is made between intestinal stasis and the many forms of ill-health, and in the magnified importance which is attached to the all-saving power of the short-circuiting operation. In view of the radical treatment urged by the followers of Lane, and the extreme confidence placed in its not yet entirely tested results, internists will do well to cultivate a sane and safe conservatism. It seems unwarranted to encourage and stimulate surgeons to hazard the performance of major operations without a most circumspect antecedent employment of all possible internists' aids and cautions. In considering the end results of ileocolostomy in the treatment of chronic intestinal stasis, I can do no better than quote the findings of James T. Case* who has had special advantages for the roentgenologic study of patients after gastric and intestinal operations. He says, "I have been especially fortunate in having been able to study a large series of cases after ileocolostomy performed for adhesions, ileal stasis, Lane's kink of the ileum, and other nonmalignant lesions. Forty such cases have been examined very carefully, operation in most of them having been performed according to the technic advocated by Lane, one of them by Lane himself. Not all the patients in this series were clinically failures, though the majority of them were examined for the cause of unsatisfactory result. In most of them, during the early months following operation, the result was apparently worth while, and in a few striking in-

*Journal of the American Medical Association, Nov. 6, 1915, page 1632.

stances the operation had seemed to work like magic; but sooner or later, usually within a year after the surgical procedure, the symptoms have begun to recur and the patient's last state is worse than the first. It should be remembered that this series of cases represents the work of more than a dozen different surgeons, most of them of national reputation—work which I believe to be on the whole representative of the best in technic which this country affords. The unsatisfactory results can, therefore, hardly be attributed to poor technic."

The treatment of chronic intestinal stasis is not a matter of plumbing. Drainage plays an important part, but not "human plumbing," as some surgeons have called it. The intestine is not a thick rigid tube, depending upon gravity for its emptying. This has been proved by Cannon and Blake in their experimental work on gastroenterostomy. The food and liquids invariably pass through the pylorus after the operation of gastroenterostomy unless the pylorus be occluded.

The short-circuiting operation or the removal of the colon is proper only when there is a very decided obstruction to the passage of the intestinal contents and in such cases the clinical symptoms of obstruction are easily recognizable. Most patients suffering from chronic intestinal stasis will respond to medical treatment. Conservative methods are coming into favor because of their evident and many-sided merits. They comprise dietetic, physical and medicinal treatment, combined with the accurate fitting of an abdominal bandage.

The internal treatment of chronic intestinal stasis is practically the same as that for gastroenteroptosis. It should be directed toward the improvement of general nutrition in order to counteract the neurasthenia and to strengthen the muscles of the abdominal walls. Patients who are poorly nourished must be well fed. The diet should be as nutritious as possible; it should contain a large proportion of fats and oils which form laxative soaps. Sometimes it is necessary to resort to "forced feeding."

Hydrotherapeutic measures may be instituted in conjunction with the diet. Systematic respiratory gymnastics are to be carried out several times a day. The muscles of the body may be stimulated by dry rubbing of the skin with rough towels. Cold water, half-baths, and the Scotch douche on the abdomen, with rubbing and slapping, are valuable. Massage plays an important role in strengthening the abdominal muscles. If a bag of salt weighing from one to five pounds be placed on the abdomen, the efforts of the patient

to elevate the abdomen with this weight will strengthen the muscles.

The mechanical treatment consists principally in bandaging the abdomen with a suitable support to the relaxed abdominal wall. It acts beneficially by ameliorating the symptoms which arise from tension or stretching of the mesenteries. As to the bandage I may say that I devised a model in 1897* which I have employed with almost uniform success in a variety of cases. The wearing of such a bandage not only raises the position of the abdominal organs, but relieves the strain and tugging on the nerves in the mesenteries. In this way the normal function of the organs is re-established. In other words, we restore normal physiology and obtain a bodily condition which readily responds to dietetic, physical and medicinal treatment.

All patients suffering from chronic intestinal stasis require iron in some form. They cannot take it internally, owing to its irritating effect on the gastric mucous membrane. This difficulty can be overcome by the intramuscular medication.

Many cases of chronic intestinal stasis recover completely when the accompanying constipation is properly treated. It is of the utmost importance to decide whether the constipation is of the atonic or the spastic type. The differentiation is not always easy. Patients suffering from spastic constipation are vagotonic. This can be easily recognized by the positive oculo-cardiac reflex, by Herring's phenomenon, and by the pilocarpine test. Spastic constipation is due to constriction or spasm of a few isolated loops of the intestine, readily demonstrable by the Roentgen ray. The fluoroscope will also show the relaxing effect of a hypodermic of atropine upon the spasm. The enterospasm may be painful or not; in the former case it is due to neuropathic conditions associated with diseases of the abdominal viscera or pelvic organs. Atonic constipation is due to abdominal tonus followed by relaxation and atony of the intestinal musculature.

The aim of the treatment of the atonic variety of constipation must be to so improve the muscular condition by dietetic measures as to finally attain regularity of defecation with a normal supply of food. The diet should be large and bulky, rich in insoluble residue, usually an increased amount of carbohydrate, and more particularly of foods rich in cellulose.

The small quantity of fecal matter present in the intestines of individuals suffering from chronic intestinal stasis is due to loss of water from prolonged retention of the feces, and also to an extraordinarily effective utilization of the food.

*Charles D. Aaron. Gastroptosis, Journal of the American Medical Association, July 31, 1897.

This utilization is too effective; the bacteria of putrefaction and fermentation cannot flourish in so poor a medium as the exhausted feces. Consequently the intestine is deprived of the stimulus of large quantities of fermenting and putrefactive products, with the result that motility is retarded. The therapeutic indication is to render the feces more voluminous, softer and more liquid, so as to bring into play the physiologic stimulation of peristalsis. Schmidt found that agar would fulfill the above-mentioned indications.

Agar is hard to digest, but absorbs and retains moisture, thus permanently increasing its own volume. It resists the action of intestinal bacteria as well as that of the enzymes, and gives bulk to the feces without introducing objectionable products of decomposition. Agar is not a purgative, but belongs to the diet in intestinal stasis just the same as fruits and vegetables rich in cellulose. Since it is harmless, its use may be continued for months.

In the treatment of the spastic variety of constipation, bulky foods are eliminated and a variety of fruits should be given because of their chemical constitution. They stimulate peristalsis, partly because of their fruit acids, and partly because they contain sugar, which tends to increase the fermentative processes in the intestine. Easily melted fats, as well as butter, oil and cream, not only have a mechanical effect, but also act chemically, stimulating peristalsis by means of the great amount of fatty acids they develop.

Petroleum jelly will lubricate the whole gastro-intestinal tract, thus facilitating the passage of the contents. The lubrication of the chyme in the intestine assists in its timely removal in cases of intestinal stasis. After the due administration of this jelly the feces are softened and under the microscope are found to contain minute oil globules. Petroleum jelly of the best quality seems to act better than the Russian mineral oil; it is heavier and therefore mixes more thoroughly with the feces; at the same time its viscosity prevents it from passing through the bowel too rapidly. The jelly, when pure, is not absorbed from the alimentary tract and even in large doses has no poisonous effect. It is useful not only as a lubricant, but also as a means of healing superficial lesions of the mucous membrane.

The sovereign remedy in spastic constipation is atropine or belladonna. The extract of belladonna may be given in doses of .008Gm. (1/8 grain) three or more times daily until the physiologic action of the drug is secured. The medication is to be continued until the throat becomes dry, when the dose should be gradually diminished. Phenolphthalein in a dose of 0.2 Gm. (3 grains) can be safely combined with the belladonna. This combination can be used as a gauge of the

amount of belladonna to be taken. If the patient is instructed to diminish the number of doses when the bowels move too freely, there will be little or no danger of belladonna poisoning.

There is no treatment that has given me better results in chronic intestinal stasis than Fleiner's oil cure. This consists in injecting into the rectum once daily 250 to 500 mls ($\frac{1}{2}$ to 1 pint) of olive oil. I have used pure cottonseed oil with equal benefit. The oil is to be retained in the bowel for a considerable time; it is best to retain it over night if possible. These injections are continued several months, at first daily, later every other day, and subsequently twice a week.

In cases of spastic constipation the oil has a soothing effect on the mucous membrane, thus relieving spasm; and in atonic constipation it strengthens the muscular tonus. Besides, it lubricates the gut, softens fecal agglomerations, and forms a protective layer upon the damaged mucous membrane.

When there is putrefaction, lactic acid may be prescribed, best in the potential form of the Bulgarian bacillus. The cultures are available in liquid and tablet form. The efficacy of this treatment is enhanced by a diet preponderantly carbohydrate and by restriction of proteins. The intestinal flora should show a change after a few days.

Transduodenal lavage, one to four pints of water being introduced through the duodenal tube, as suggested by Jutte, will often give good results. To inhibit the growth of the anaerobic bacteria, oxygen can be introduced through the duodenal tube.

38 West Adams Avenue.

Cause of Bilharziosis. F. G. Cawson, Pietermaritzburg, Med. Jour. of S. Africa, Feb. 1916. The ovum of *Schistosomum Japonicum* is oval or globular and spineless. Ova with a lateral spine, are found in Brazil, Puerto Rico, Egypt and tropical Africa, in the bowel affection. In Egypt, the lateral-spined egg in the faeces is associated with the terminal-spined egg in the urine. In S. Africa, only terminal-spined eggs are found, both in the bowel affection and in haematuria. The adult parasite cannot be differentiated between the varieties producing the terminal and lateral-spined ova. The Japanese have traced the infection from cercariae in the liver of snails, in stagnant pools, to the mesenteric systems of mice; also from merocidia in infected cattle to cercariae in the livers of snails. Various bathing pools in S. Africa rivers have long been popularly believed to be sources of infection and the author and others have found infected snails in some of these waters.

Hemorrhoids and the General Surgeon

ROLLIN H. BARNES, M. D.,

Editor of The Proctologist and Gastroenterologist.

Fellow of the American Proctologic Society.

St. Louis, Missouri.

It seems peculiar that the general man who is so full of surgical procedure should when it comes to the hemorrhoidal region forget all this knowledge and use methods so obsolete, in this particular region.

Hemorrhoids are tumors the result of dilatation of the hemorrhoidal plexus of veins. This condition known since the most ancient history has not an accepted pathology, so I suppose one has as much right to theorize as another. Why should we look for the most complicated pathology when a simple one is more reasonable and more apt to be correct? I consider the dilatation of the veins of this plexus to be due to some inflammatory process that weakens the mucous membrane overlying them. They gradually enlarge and inflammatory processes result in the well developed hemorrhoid.

Some have considered hemorrhoids a very minor trouble. It is no doubt that they produce considerable suffering and, long continued inflammation in this region of abundant lymphatics, results in toxic absorption that produces systemic troubles, the extent of which we are just beginning to recognize. Physicians generally have been led to believe that hemorrhoids amount to little, and they allow these patients with hemorrhoids, without proper advice, to suffer for years until they end in some serious condition. When a patient complains of trouble in this region it is very important that the attending physician should go into careful diagnosis of the existing condition and carry out the proper treatment for I consider this to be along the line of preventative medicine.

If these cases are seen early there is no question but what thorough treatment of the case will prevent extensive hemorrhoidal development and it will not always be necessary to perform operative treatment. When once inflammatory processes have resulted in well developed hemorrhoids, no delay should be taken in their removal by operative methods.

There are many methods in use that are obsolete and not in accord with our surgical knowledge of today. I cannot understand why one who is trained in surgery would think

of injecting phenol into a tumor mass, in order that it may slough away. Equally obsolete is the tying of a ligature around a hemorrhoid or the cauterizing with red hot iron that will result in a slough. Is it not more reasonable to remove these tumors by a clean cut longitudinal elliptical incision so that when the parts contract the edges of the wound will coapt evenly? There has been much fear and exaggeration of the danger of hemorrhage from such a procedure, but the day is past when a surgeon should not be able to control a primary hemorrhage the result of an incision that involves the smaller blood vessels. No one has seen extensive hemorrhage from the anal canal when the sphincter contraction is normal. We should avoid such methods as would lead to relaxation of these parts. I do not think it is good surgery to use sutures in this region unless it is absolutely necessary because it is impossible to thoroughly sterilize this region. There is always infection present and we know that a suture will carry infection into the tissue. When a suture is used additional tissue is involved, hence I believe in the open method for the removal of hemorrhoids without the use of sutures.

Ochronosis and Melanuria. B. S. Oppenheimer and N. W. Janney, Med. Rec., May 6. The condition was first named and described by Virchow, 50 years ago, the name being peculiarly inappropriate (ochros, pale, wan, yellow, yolk of egg). Albrecht 1902, noted the occurrence of alcaptonuria. Ludwig Pick, 1906, described a group of cases due to phenol poisoning. The patient was a male, aged 40, without significant family history—no consanguineous marriages—denying venereal disease. He weighed 104 pounds on admission, had cough, occasional haemoptysis, obstinate constipation and complained of spinal pains, Geo. R. Elliott finding ankylosis of lower $\frac{3}{4}$ of vertebral column, an osteoarthritis the primary lesion being degeneration of the intervertebral cartilages. Typic pigment deposits were noted, the entire eyeball except cornea becoming brownish-black within half an hour after death. A loud systolic murmur, thickened arteries and enlarged liver were also noted. Melanogen was present in the urine, which darkened on exposure to light. In this case, alcaptonuria was excluded, there being no homogentiesic acid. The melanin present contained CHONS and Fe. Ochronosis may be divided into three classes: those due to phenol poisoning, those in which alcapton or a modification is present, those like the present, in which a similar ferment action occurs on proteids containing an oxy-phenyl radicle.

Case History of Centenarian—Cancer—Radium.

EVAN O'NEILL KANE, M. D., Kane, Pa.

S. McK., referred by Dr. E. S. Briggs of Tidioute. He had suffered eighteen years from a cancer of the right orbit, the early history of which could not be definitely determined. At the time of examination, about ten months ago, the entire orbital region was involved, with complete destruction of the interior and extension of the disease well over onto the temple, nodular masses springing from the external border of the orbit and temporal ridge. The cavity had been eaten out so completely that an open space existed, extending far back. The side of the nose was commencing to be eroded, thickened and nodular. A remnant of the eyeball, thickened and degenerated, was drawn into the inner orbital angle. A foul and irritating discharge subjected the adjacent skin to considerable excoriation. Pain was so severe as to require recourse nightly to anodynes, and often during the day. His health was otherwise fairly good for so advanced an age. He was taken to Kane Summit Hospital Sept. 9, 1915, and put under radium treatment, being given 6700 milligram hours of radium element during the first week. A severe reaction took place, with marked constitutional disturbance. The site of treatment, its vicinity, and the entire cheek, temple, right side of the upper jaw and nose, became first dark red, then edematous, and finally covered by an extensive radium burn of first and second degrees. The hair of that side of the head and the whiskers fell out. The cancer tissue formed a deep gray slough.

Prominent among the constitutional symptoms during reaction were chills, anorexia, diarrhoea, albuminous scanty urine, and a broncho-pulmonary disturbance suggestive of broncho-pneumonia, with, for three days, some edema at the base of both lungs which made breathing difficult and was quite alarming. The reaction was protracted, lasting nearly three weeks and subsiding very slowly, both constitutionally and locally. The sloughs were peculiarly tardy in detaching, and the swelling did not subside completely for two months. Then healing began, first with a gradual filling of the cavity by granulation tissue, and thereafter at all points it reached a level with the surrounding skin epithelial proliferation advanced from the edges, at first quite rapidly, but this cicatrization ceased later and skin grafts were necessary to carry on the process. This took place satisfactorily everywhere, though slowly, save across the upper third of the orbital space, upon which a mucous covered, smooth, ulcerating surface persisted, owing to the impossibility of bringing

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the skin margin down to meet it. At times this would partially skin over, but the patient, who was very refractory, would tear off the dressings to scratch the sore with his nails, claiming it was "full of bugs." Otherwise sound healing everywhere was completed. No vestige of cancerous tissue remained anywhere at the date of dismissal, June 8, 1916, either in the original focus, or upon the temple and nose where extensions had previously existed. The outer half of the zygoma had been devitalized, either by the cancer or the action of the radium, and had to be detached and removed about four months after patient's treatment commenced. The newly formed skin where the radium burn had been was soft, pliant and of a healthy rose pink tint, but without a return of hair except around the margins. As soon as the constitutional symptoms subsided he ate well, slept well, and was free from pain (we were able to discontinue his anodynes a short time after his admission), and, save for an annoying formication, such as is frequent with elderly people, and which he insisted was due to the creeping of "bugs," was in excellent physical condition most of the time.

It is interesting to note that a fracture of the thigh in the upper third, with an overriding of about five centimeters, had been sustained at the age of 98, from which he recovered without impairment of function under the care of the hospital staff of the Warren Emergency Hospital; and also a Colles' fracture of the right arm at the age of 100, tended by the late Dr. Suggart of Tidioute, with good union and no subsequent loss of usefulness. His eyesight and hearing are but triflingly impaired and his mind is quite clear, he being able to talk intelligently, though readily fatigued by protracted conversation. McK. is a native of Ireland (Scotch Irish), coming to this country at the age of 39, and living an outdoor life as a farmer and teamster in the oil region of Crawford County, where he for a time conducted, in addition to his farming, a rough sort of hotel saloon.

He had three wives, all of whom he has outlived, and a numerous progeny. These latter are, nearly every one, scattered, dead and forgotten. No one cares anything for him, and he has no property to covet. What little he ever accumulated was lost through going security for a friend. He was never sick a day in his life, he affirms, save from his cancer and the above mentioned fractures. A religious man, always leading a moral and temperate life, generous and good natured, industrious and with great powers of physical endurance, possessing a fair education and sound judgment, he was well equipped for the battle of life; yet, though already embarked upon his second century, this venerable relic of past generations has achieved nothing worthy of mention;

the fields of art, science and literature have, none of them, been enriched by him; no great fortune has been made; no political or social aspirations, if he ever had any, have been satisfied. He has amounted to nothing, and neglected and forgotten he is declining into innocuous desuetude, with only, like Methuselah, his length of years to place to his account,—

“A life of nothing, nothing worth
From that first nothing ere his birth
To that last nothing under earth.”

230 Clay Street.

A Unique Murder Case With Application of New Law Governing Expert Testimony is the title of an article by Dr. James W. Putnam, in the American Journal of Insanity, April 1916.

The case detailed is that of a Pole, about 43 years old, who killed a young man on the beach near Dunkirk, and then notified some men to send for the police. He then sat down and waited on the beach until the officers came, when he walked toward them, extending his hands and told them to put on the hand-cuffs, as he had killed a man. The only motive for the crime was that someone told him he must kill someone because his mother had been killed in the European War. This thought was ever present with him until the morning of the day of the murder when he said: “The time has come; I must kill someone.”

Owing to the unusual circumstances of the crime the court appointed an expert under an act which was passed by the legislature of 1915, which provides that the court may appoint its own expert to examine a defendant accused of crime and report to the court, and either the people or the defendant may put the court's expert on the stand for examination, as either party may desire. It was under this act that Dr. Putnam was appointed by the court to examine the defendant, and he reported that the man knew the nature of his act; that he knew it was contrary to the laws of the state; but that he did not know the quality of the act, namely, that he was doing wrong, because he laid the responsibility on God, who told him to kill.

The jury rendered a verdict of acquittal on the ground of insanity and the defendant was committed to the State Institution for Insane Criminals at Matteawan, N. Y.

The act of 1915 appears to be the first legislation in this state providing for the designation of official experts in cases where the issue is insanity.—E. A. S.

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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The Renaissance of the Profession.

Many excellent persons, with no desire to be pessimistic or disagreeable, find fault much more frequently than they bestow commendation. They are so thoroughly impressed with the importance of maintaining high standards that they take as a matter of course, whatever is good and laudable and protest vehemently against any departure from the ideal. While believing that the best that is humanly speaking attainable, is the normal standard, it does no harm, occasionally, to praise the man whose work is good nor even, within limits to commend ourselves.

In speaking of the Renaissance of the Profession, we have no intention of enumerating the many additions to our scientific knowledge, acquired within the memory of men still living nor of again alluding to the higher standards of general and technical education now enforced. Indeed, during the last few years, we have had occasion to search out early cases of a certain rare condition and, in the search, have been led to read several medical works of the eighteenth and seventeenth century, even reaching into the sixteenth and have lost much of the natural conceit of modern superiority. Not only does it appear that we really do not know a great deal more than our predecessors three centuries ago, but one is impressed with their greater scholarship. In the main, whatever superiority we possess, rests on the availability of various absolute facts, due to co-operation, better knowledge of one another's work, compilation of statistics, and to technical scientific experimentation and research based on

essentially extra-medical studies. In reading the old authors, we find an immense amount of erudition that is now useless or false and certain misconceptions now corrected. But, the fair-minded modern can readily imagine that our fathers in medicine would not have made these mistakes, if they had had at hand the cold facts furnished us from other sciences and if they could have compared notes across international lines as easily and quickly as can be done at present. To allude to one detail, it seems that if the medical profession of the twentieth century, had so general a familiarity with the lymphatic circulation as did that of the seventeenth and paid as much attention to it clinically, and physiologically, with the greater accuracy of theoretic scientific knowledge now possible, we might, within a very few years, attain practical results of the utmost importance.

The renaissance of the profession is attested in many ways, by a comparison of medical meetings twenty years ago and today. Broadly speaking, the profession has again become "the faculty" of a century ago. It is unified, strengthened, influential, able to control itself, to exercise a strong corrective and restraining power over individuals or cliques who placed their own selfish ends above the interests of the profession. It is no longer a suppliant for legislative favor, even in matters of the general welfare, but the acknowledged advisor of government in all matters in which medical experience and technical knowledge are required for sound judgment. Many of the evils and "problems" which were real, oppressive and apparently beyond our power to correct, even twenty years ago, have actually been settled, if not always perfectly, still to a reasonably satisfactory degree. Best of all, is the self-confidence gained, the conviction that there is no reform, present or future, necessary to the welfare of the profession or of the population at large and depending upon medical experience, which cannot be achieved by united effort.

Great advances are often indicated by apparently trivial details. Twenty years ago, consultation between a "Regular" and a Homoeopath, was an event. Forty years ago, two prominent members of these bodies, met at a social function. One remarked to the other, "Sir, we meet on neutral ground tonight"—and he spoke in all seriousness. Now, they would meet at a local society session as a matter of course, call each other by their first names, and talk over the latest case they had seen together, while waiting to discuss the same paper.

Fairly young men in the profession have witnessed the struggle of amalgamating small societies, limited almost to

personal acquaintances, into strong local, scientific organizations; even younger ones have taken part in the welding together of the national, state and county societies and have watched the transition of united efforts at mutual protection and benefit from the stage at which it was denounced as chimeric, to actual successful operation. It is only a few years since the profession lent its aid, individually, to all sorts of impostures because the average physician had no information regarding the composition of a food or drug mixture, beyond the statements of the manufacturer. The writer can well remember being called visionary, because he suggested that the A. M. A. or some other body ought to analyse such preparations and render such information generally accessible. Today, we not only have information upon such matters, upon which the individual practitioner can base a judgment, but a fairly perfect legal control of the sale of drugs and foods and a practical elimination of the more serious offenders.

To return to the subject of medical meetings, how many of our recent graduates understand what is meant by a "Stormy Petrel?" Yet, twenty years ago, it was common medical slang to designate prominent doctors who never attended a meeting of a county or similar society unless there was a fight on—and they had a pretty good attendance record at that. Can they imagine a society of physicians that almost never pretended to hear a medical paper? Or that left, almost in a body, when the "business" session was over and the scientific session began, when such a session was planned at all? Could our young men master the intricate etiquette of seating themselves at meetings so as plainly to designate their political affiliations? Do they realize the recentness of a social session and lunch at the end of certain society meetings and that the generally attended dinners of others have grown out of the gatherings of a select few, at which the management of affairs was planned? Merely in attendance, our society meetings have shown in a comparatively few years, not only the development of a wholesome fraternal spirit, but a genuine interest in **medicine** rather than in medical politics. The man that we do not know is instinctively regarded as an enemy. Witness the history of ancient peoples and the attitude of a gang of little boys toward the new boy—each of us passes through the evolution of the race, on a small scale, in his own life. The profession seems to have passed out of the stage of barbarism and to be entering on a period of enlightenment when petty things will no longer distract its attention and when all of its energies will be concentrated on scientific and humanitarian problems.

Cancer.

In response to numerous propagandist statements, we wish to say, with equal dogmatism though not of a personal kind, that cancer is NOT a local condition, primarily. True, like every other disease, it must have a local habitat and this is almost always limited in extent for a considerable period but the disease is no more essentially local than diphtheria or gout. This is not a quibble of words. Every hope as to prompt diagnosis, prophylaxis of the disease itself and of therapeutics beyond sacrificial removal or destruction of the part involved, depends upon the conception of cancer as a general disease.

In a purely academic sense and as representative of ideal conditions, toward the realization of which very little progress has been made, early cancer may be a curable condition—in the sacrificial sense stated. Under existing conditions, cancer is not curable even in this sense excepting in a comparatively small minority of cases affording exceptionally favorable opportunities for early recognition. Nor are the great majority of cases which are not subjected to early surgical or other destructive methods of treatment, delayed through lack of skill or neglect by diagnosticians, according to standards at present possible.

Speaking approximately, the best surgical statistics of exceptionally favorable series show that about 25% of cases attacked by the operator with the hope of radical success are cured. Surgical statistics of series attacked as potentially curable, actually give about 10% of cures. There are no statistics, so far as we know, to indicate what percentage of cancer cases in the aggregate or what percentage of cases excluding those in which diagnostic methods are neglected or advice as to operation disregarded, are ultimately cured. The guess may be hazarded that 1% of all cases and 2% of cases in which no gross neglect can be ascribed to patient or physician or operator, are cured.

Such statistics are not made worse by rarity of material which excuses unfamiliarity with potential diagnostic and therapeutic problems and lack of attainable skill in either of these directions. Neither, if we exclude instances of gross diagnostic and operative incompetence, is there a marked difference in results, comparing average medical and surgical practitioners, with authorities. Cancer deaths are about half as frequent as those from tuberculosis, nearly seven tenths as frequent, if we exclude deaths under the age of five, for which period cancer is very rare. Nearly 1% of all deaths are from skin cancers, where the difficulties of diagnosis and treatment would seem to be at a minimum.

The great majority of cancers develop at an age and under other circumstances which suggest the diagnosis even to the laity. Instead of there being danger of forgetting that cancer may be present, the physician is rather embarrassed at having the diagnosis suggested almost as a routine and in the most varied conditions, including those of trivial nature. From the literary standpoint, the profession, not to mention the laity, has had fully as much education as regards cancer as for tuberculosis. Tuberculosis has been prevented or cured to an extent corresponding to the reduction of the general death rate. That is to say, while the general death rate has been reduced from 20 to 14, the tuberculosis fraction remains just about 10% of the total. Cancer, on the other hand, seems to be increasing, although this may be due to the greater average longevity of the race. While there has been a decided improvement in statistics of favorable operative series, this improvement seems to be less than the corresponding improvement in the results of treatment of tuberculosis. The complaint of surgeons—and propagandists—that cancer cases are not referred sufficiently early for radical treatment, is as bitter as it was 20 years ago and, still more significant, comparative results of series according to lapse of time from the beginning of symptoms—excluding obviously neglected cases—do not show the significant superiority of the chances for cure after very early operation, as contrasted with progressively longer periods, within reasonable limits. (Bloodgood).

The logical conclusion would seem to be that, on the whole, the profession, diagnostically and therapeutically, is doing the best it can under existing limitations of scientific knowledge and that, under these conditions, cancer is not a preventable disease except to a very minor degree and in particular groups of cases, while it is not curable except in a small percentage of cases, and then by sacrifice of the area attacked. It is desirable that the profession should recognize its limitations and look ahead to future accomplishments. But we feel strongly that the time is not ripe for optimistic declarations of what ought to be done; certainly not for stating these in terms of what can be done. It is most unfortunate that optimism should be so expressed and so published as to reflect upon the skill and caution of the profession.

The Sore Head.

It is plain to anyone interested in the economic and social problems of medicine, that what is popularly termed sore-

headedness is a considerable and serious obstacle to professional unity, even to professional efficiency in its potential benefits to the community. If the sore head could be eliminated, the profession and the laity would both be immeasurably better off. But, it is only fair to recognize that the sore head is, to some degree, a secondary evil. That is to say, his Ishmaelism is more or less justified by the existence of primary evils to which his own attitude is merely a natural reaction.

Once we commented on the difference between two brothers, one of whom had risen far beyond his original status but whose success was checked by his general reputation of being tricky and dishonest, while the other, though in humble circumstances, seemed to be perfectly upright. "Bless you," was the reply, "—— (the second brother) is eating his heart out because he does not know enough to be as much of a shyster as —— (the former)." This is the trouble with many sore heads. It is not so much the existence of an ethical evil that troubles them as the fact that they are the victims and not the perpetrators of it.

We have heard of a physician, by no means a sore head, who, toward the close of an active independent career, very successful too, expressed the regret that, instead of becoming known as one who would always protest fearlessly against an evil, however prominent its source, he had not acquiesced and thus gained friendship and prestige from the very sources that he had antagonized. Such regret is itself regrettable. The sore head is not only a general nuisance but he damages his own cause most of all. The essential trouble with him is his personal bias. He is thinking too much of the effect of general conditions on himself, too much of the individual source from which such conditions emanate. If he will think in terms of all who are injured; if he will act without malice to any one but against wrong conditions in general, he will cease to be a sore head and will exert a real influence toward reform.

Tumor of Labium Majus. J. W. Crawshaw, New Zealand Med. Jour., April. Patient aged 48. 8 years ago, after birth of last child, noticed a fleshy wart. For four years, it grew very slowly and caused no inconvenience but it then developed a pedicle and grew more rapidly, interfering with walking. The week after menstruation ceased, it increased in size, shrinking after another week. The dimensions were: length 5 inches, greatest diameter $\frac{3}{16}$, pedicle, $\frac{1}{2}$ inch long, greatest diameter below pedicle about 1 inch. He quotes Howard Kelly as having been able to collect only 20 cases.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

A Few Ophthalmic Reminders for the Busy Practitioner. This is a booklet issued free by the Fellows Medical Mfg. Co., 26 Christopher St., N. Y.

It contains three plates in color, showing the normal fundus, and primary and secondary atrophy of the optic nerve, these plates being taken from J. M. Ball's Modern Ophthalmology, published by the F. A. Davis Co. The text is based on standard authorities, and covers many points in differential diagnosis, treatment, etc. We would advise any physician who has not received this publication to apply for it.

Skin Cancer, Henry H. Hazen, A. B., M. D., of Washington; C. V. Mosby Co., St. Louis. 250 pages, 97 illustrations and colored frontispiece. \$4.

One of the most important chapters of this work is that on the very considerable number of precancerous dermatoses, the incidental consideration of technically benign lesions being also of service in regard to prompt differentiation, and prophylaxis by early operation in doubtful cases. The general consideration of pathology is extremely valuable, all the more so because the limitations of our knowledge are frankly stated. The newer methods of treatment are considered but with due conservatism.

Disease of the Digestive Tract and Their Treatment. A. Everett Austin, A. M., M. D.,; C. V. Mosby Co., St. Louis. 592 pages, 85 illustrations including 10 color plates. \$5.50.

This work is divided into two nearly equal parts, the first dealing with physiology, anatomy, physical and chemie examinations, dietetics and general principles of treatment; the second considering the various diseases in detail. It would perhaps be more accurate to designate the work as one on the stomach and intestine, as the oesophagus, liver and pancreas are not considered except incidentally. There is no disposition to emphasize the stomach at the expense of the intestine nor to exaggerate the importance of any one method

of examination, as by the X-ray, physical and chemic methods, nor to follow a hobby in regard to dietetics or any other therapeutic means. In fact the work is well balanced and critical and represents the best work of the clinician. We quite agree with the author in his low opinion of the alizarin test, though we think that if it is especially unreliable in any one condition of acidity, it is in cases of achylia rather in those with abundant HCl. The diagnosis of hyperchlorhydria by effervescence ascribed to Fuld, was described by the editor, some years previously, as Fuld took pains to publish when his attention was called to it. Naturally, we have a somewhat higher opinion of this test than Dr. Austin, though it is of course, approximate. The estimation of acidity on an absolute basis rather than by relying entirely on degrees of deci-normal solution, is a point well taken. It seems rather doubtful, however, whether this can be definitely ascribed to E. Schuetz. It must have occurred to almost anyone engaged in gastro-enterology to determine the absolute total, either in terms of deci-normal HCl or the weight of concentrated HCl. Still, one cannot properly differentiate between hyper and hypochlorhydria, simply by estimating the absolute total of HCl present. A stomach with very scanty contents may be markedly hyperchlorhydric while one that happens to be quite full, may be distinctly hypochlorhydric, although the total amount of HCl in the latter may exceed that in the former. The colored plates of faeces, mainly from A. Schmidt, rather exaggerate the actual appearances.

Elements of Active Principle Therapeutics. J. M. French, M. D., Milford, Mass., published by The Abbott Press, Chicago, 128 pages. \$0.50.

This work is arranged mainly according to diseases, i.e. by the general problems presented case by case, rather than by the potentialities of various drugs. A quarter of a century ago, the main hope of the profession for practical advance in treatment, lay in improving the materia medica, and, for the most part, by developing definite chemic substances of physiologic action, rather than relying on the crude and variable content of those substances in plants and Galenical derivatives. While many therapeutic methods have since been developed that have thrown the alkaloids in the shade, it must be acknowledged that, for practical purposes, drugs remain in a very valuable and perhaps even the most valuable part of our entire therapeutic armamentarium. That drugs should be used intelligently implies to a large degree that they should be used in definite chemic form, unmixed unless for a definite purpose, and susceptible of accurate dosage.

Thus, a work of this nature is of the highest practical value and one that should not be ignored simply because more recent means of treatment hold the center of the stage, largely because of their novelty.

Progressive Medicine, Vol. 19, No. 2, June 1, 1916. Edited by H. A. Hare and L. F. Appleman of Philadelphia, published by Lea & Febiger. Quarterly, \$6 per year.

The present number (designated volume) includes Hernia by Wm. B. Coley; Surgery of the Abdomen, exclusive of hernia, by John C. A. Gerster; Gynaecology by John G. Clark; Diseases of the Blood, Diathetic and Metabolic Diseases, Thyroid, Spleen, Nutrition, and Lymphatic System, by Alfred Stengel; Ophthalmology by Edward Jackson. Gerster deals largely with war surgery. The rather cumbersome title of Stengel's division, suggests that some convenient term should be generally adopted for what is pretty well recognized as a convenient group of diseases. The work is well illustrated and, perhaps on account of personal interest, seems to us of even higher standard than that established for this quarterly review.

The International Medical Annual, 34th year, 1916 (reviewing 1915 literature), published by Wm. Wood & Co., N. Y., 735 pages, 53 page plates, 64 text illustrations, \$4.

This includes a glossary of new terms, an alphabetic index of drugs with notes of new ideas, and a discussion of advances in electro-therapeutics, X-ray and radium methods, vaccine therapy, etc. A second alphabetic arrangement of titles or organs and diseases follows, comprising most of the book. The page heading suggests that only "New Treatment" is considered but many other details as of diagnosis, bacteriology, etc., are included. Special chapters follow on Naval and Military Surgery and State Medicine (or Public Health). References to last year's Annual are listed when no special advance has been chronicled since its issue. Covering almost every conceivable topic in medicine, this work is surprisingly full. Bibliographic references are given for the use of those desiring a more detailed study of any topic.

Buffalo State Hospital. 45th Annual Report for the year ending Sept. 30, 1915. J. B. Lyon Co., Albany.

This report reflects great credit upon Dr. Hurd, the Medical Superintendent and the staff. 444 patients were admitted, 330 being first admissions; 2,539 different patients were under treatment; the average population was 2,150, though the

rated capacity was only 1,704. 168 died; 94 patients were discharged as cured. Sept. 30, 1914, 2,095 patients were under treatment, increased at the end of the fiscal year to 2,142, 1,894 of whom were supported by the state. The analysis of cases and reports of surgical, dental and ophthalmologic care, of pathologic studies, etc., are of interest. The actual cost was \$206.87 per capita, it being estimated that farm and garden products amounted to \$8,668.67 and articles made by patients to \$9,674.01, 48% of the patients having been employed in useful work.

Diseases of the Eye. By George E. deSchweinitz, M. D., LL.D., Professor of Ophthalmology in the University of Pennsylvania. Eighth Edition, Thoroughly Revised and Enlarged. Octavo of 754 pages, 386 text illustrations, and seven lithographic plates. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

We have previously reviewed earlier editions of this work, which has become a standard in the esteem of the profession, among the comprehensive and one might almost say cyclopaedic text books confined to special branches of the healing art. Except for the introduction of new matter, it was difficult in reviewing the seventh edition to realize that revision would be necessary. The eighth edition is the latest word uttered on the subject but we trust by no means the last that we shall have from this distinguished author.

Disease of the Skin. Richard L. Sutton, M. D., Kansas City; C. V. Mosby Co., St. Louis; 916 pages, 693 illustrations, 8 colored plates. \$6.50.

Both in volume and elaborateness of discussion, implying wide experience and critical study, this book takes its place among the major text books. The author has made no attempt to deviate from the customary and logical arrangement of analogous works. About an eighth of the work is devoted to the general considerations of anatomy and histology, etiology, methods of diagnosis and treatment and classification. The detailed discussion of diseases, following the pathologic classification occupies the remainder of the work, up to the index, there being no appendixes. We note the following items: In spite of the tendency to include venereal diseases under dermatology and the past experience of the author as a naval surgeon, syphilis is not unduly prominent although it is given adequate space, as are tubercular lesions, yaws, leprosy, chancre and the exanthemata.

True chromidrosis is sharply distinguished from pseudo-chromidrosis. Espundia, Perleche, Oroya fever and other diseases of foreign countries are well treated. Sporotrichosis cases are shown on a map of the U. S. Whenever necessary, bibliographic references are given at the end of a topic. X-ray and radium are discussed both as therapeutic measures and as causes of lesions. Sclerema and oedema neonatorum, elephantiasis, acromegaly, myxoedema, acarophobia and many other conditions of interest to the internist, are included and are treated in a broad-minded way.

1915 Collected Papers of the Mayo Clinic, Rochester, Minn. Octavo of 983 pages, 286 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

Without attempting to review this voluminous report in detail, we select some of the papers on unusual subjects. Luigi Durante describes 5 cases of tuberculosis of the tongue. Willigk found 2 in 1317 necropsies (sic, we are glad to note that others are using this term, autopsy really meaning something quite different); Fowler 4 in 382; Fischer 3 in 1500; Chiari 12 in 625; Adami none in 417 cases of tuberculous disease; Hamel 1 in 12,369 of pulmonary tuberculosis; von Ruck 19 in 500 clinical cases at Wynyah. The total number of cases recorded is about 258.

A. H. Sanford and G. B. New find that *entamoeba buccalis* is found in 14% of mouths free from gingival infection, and increasingly according to the degree of pyorrhoea but think its pathogenicity cannot be considered proved. *Entamoeba buccalis*, the putative germ of pyorrhoea and *entamoeba histolytica* of amoebic dysentery are different organisms and there is no parallelism in their presence. Before accepting ipecac alkaloids as a cure for pyorrhoea, it must be established that they actually destroy the amoebae in the mouth.

G. B. New discusses bilateral parotid tumors, classifying them according to personal experience as (unspecified) not explained or due to taking acids, or other foods causing spasm of ducts, to catarrhal inflammation (colds) etc.; syphilitic; tuberculous of which Homuth collected about 21 cases; those associated with lymphatic leukaemia or pseudoleukaemia; Mikulicz's disease; those due to local infection (not to mention mumps).

Edward C. Kendall details various experiments tending to support the idea that thyroid diseases do depend on iodine compounds, though not exactly in the ways previously conceived. The desiccated "proteins" after rejection of 80%

water and fat, are hydrolyzed by sodium hydroxid in alcohol. The acid-insoluble portion yields lauric acid, tryptophan, tyrosin and other amino-acids, an indol nucleus and other N compounds and a crystalline compound "A" containing 60% of iodine. The acid-soluble portion is broken up artificially into physiologically inert N compounds, a reducing substance and amino-acids containing "B" iodine. The "A" iodine compound is highly toxic and seems to be directly responsible for the exophthalmic and hyperthyroid group of cases but in a way directly opposite to what has been conceived a priori and, it may be said, contradicted by analyses. That is, such thyroids contain 1/50-1/20 the amount of A iodine of normal glands instead of an excess and the iodine increases with amelioration of symptoms and regression of the gland and vice versa. The plausible explanation is that hyperthyroidism is due to diffusion of the toxic iodine compound. Conversely, in cretinism and myxoedema, while the B iodine compound seems to have no effect, the A compound in small dose (about 1/3 m.g. a day, 1/2 m. g. sometimes causing toxic symptoms) gives marked relief. A case of myxoedema was however, subjectively relieved to some degree by the B compound.

Frank C. Mann in experiments on shock and haemorrhage (after anaesthesia maintained by auto-intratracheal inhalation after producing unconsciousness) corroborates the old notion of "bleeding to death into one's own veins." It was postulated that the efficient circulating blood could be withdrawn from a large artery—the femoral and that practically all left in the larger vessels could be expressed from the right auricle and vena cava, with the animal in the Trendelenberg posture. Comparative results were as follows: (averages) Normal controls: obtained from femoral 66%, from right auricle and cava 10%, total 76%, residue in tissues 24%.

Cervical cord cut: 54%, 11%, 69%, 34% residue.

Ether pushed to respiratory failure: 46%, 13%, 59%, 41% residue.

Shock by exposure of abdominal viscera: 28%, 11%, 39%, 61% residue.

Spinal cord destroyed from 6th cervical segment down: 42%, 15%, 57%, 43% residue.

Adrenalin injected after production of shock, animal bled after blood pressure had reached highest point: 38%, 8%, 46%, 54% residue.

It was pointed out that the psychic factors involved in human shock, as in railroad accidents and in traumatic practice generally, cannot be duplicated experimentally and that the maximum of shock for experimental purposes, is from

abdominal exposure. Bearing this in mind, the increase in residual blood, according to degree of shock and the antagonistic action of adrenalin, are well shown.

Edward C. Rosenow and Sverre Oftedal, in a study of the aetiology and experimental production of herpes zoster, claim that it is due to a streptococcus having an elective affinity for the ganglia and posterior roots, possibly in some instances to other bacteria. In some instances, human and animal, the streptococcus is also found in the blisters.

Many other papers, of equal value, as relating to gastric and duodenal ulcer, the spleen, to surgical technic, neoplasms, etc., are not abstracted.

Rules for Recovery From Tuberculosis. Lawrason Brown, M. D., Saranac Lake, 2d edition, Lea & Febiger, 184 pages, \$1.25.

This book contains rules of hygiene, especially with regard to abstinence from alcohol and tobacco, on food, fresh air, exercise, recreation, temperature, drugless control of cough, body weight, climate, care of children in households of consumptives, tuberculin, care of the mouth and a discussion of the nature of tuberculosis and of the terms cure and arrest. It is well written, contains perfectly orthodox ideas and yet we rather question the advisability of such a book for the patient, either placed in his hands by the physician as one might place a diet list, or, fortiori, if the patient should conclude that it would supplant personal medical guidance. It does not, of course, contain anything with which a well informed physician is not already familiar.

Psychology of the Unconscious. A study of the Transformations and Symbolisms of the Libido. Dr. C. G. Jung, University of Zurich, authorized translation by Beatrice M. Hinkle, M. D., N. Y. Moffatt, Yard & Co., N. Y. \$4.

The author shows a wonderful familiarity with ancient religions and the work is replete with quotations, in the original or in translation, from Latin, Greek, Hebrew, Sanskrit, etc., also with poetry and descriptions of customs of primitive peoples. Psycho-analyses are also adduced from the author's abundant experience with insane and border-line nerotic cases. The translation of such a work into idiomatic English is, alone, a stupendous task. In attempting to review this book, intelligently, we are impressed with the existence of a personal mental "blind spot."

Analysing Character. Dr. Katherine M. H. Blackford and Arthur Newcomb, 3d edition, Review of Reviews Co., N. Y. 488 pages, illustrated from photographs. \$3.

This book is divided into four parts: analysing character in vocational guidance; in selection of employes; in persuasion; and the principles and practice of character analysis. Tables of requirements for success in various lines of work are given. The work is very readable and interesting. The illustrations are largely of successful men in business and professional life, including politics, but include some anonymous failures. Rather by implication than assertion, character analysis is presented largely on the basis of physiognomy and cranial conformation. Excepting extreme types of cranial abnormality, we are rather sceptic as to the possibility of correct deductions from anatomic appearances; at least without very thorough training and native or acquired skill, as in any other matter. More dependence should be placed, we think, on known facts of the individual character. Perhaps it would be fairer to put this opinion in the form of a confession that the writer recognizes his own inability to judge character by inspection, without the history of the case, even to recognize in the photographs presented, the salient appearances on which it is implied that character may be judged and success or failure estimated in advance. The analogy to diagnosis of disease by inspection alone, is obvious. At intervals, two problems are brought up repeatedly, and more or less explicitly, which we think often puzzle physicians and others. To what degree shall one persevere against obstacles and discouragement and when shall one conclude that failure in a given line of work is permanent, warranting a change of vocation? How shall the physician or anyone else engaged in an occupation that involves mainly personal labor, that cannot well be conducted on a large scale, with a considerable force of assistants, conserve his energies for the real work and avoid frittering away his time and strength on details? Unfortunately, we do not find definite answers to these problems. Perhaps they are insoluble.

TOPICS OF PUBLIC INTEREST.

Statistics as to Expense of Sickness. R. M. Hardy in *Public Health*, is quoted as saying that in 1915, the American people lost a million years in sickness—a tenth of a year per capita—which is probably a conservative estimate; that

\$1,220,000,000 was paid for the doctor bill alone; and that $\frac{3}{4}$ of the loss was preventable. As there are somewhat near 122,000 physicians in the country in actual practice—and note that we make no accurate estimate,—this means an average professional income of \$10,000. We are inclined to think that this item has been exaggerated 5-10 times. Possibly, in the sanitary and hygienic millenium, $\frac{3}{4}$ of the sickness might be avoided but more accurate statistics of certain details show that the increased liability to disease in the senile period of those who have been saved from tuberculosis, typhoid, etc., in early life, or the inevitable adult diseases of the large number saved from infantile death, tend to compensate. While the average age of human beings in civilized countries at death, is very much longer than it was a quarter of a century ago, the actual longevity of those who escape untimely death has not been materially increased and probably never will be. Certainly, under existing conditions, even granting the application of measures shown to be efficient in preventing disease and death, it can not be said that $\frac{3}{4}$ of disease is preventable. $\frac{1}{4}$ would be a more reasonable estimate. “Statistics” of this sort do more harm than good.

Ink Pad as Hygrometer. Have you noticed that, with the disuse of heating and the presence of considerable degrees of humidity in the outdoor air, your ink pad absorbs more moisture than usual, owing to the glycerine present, and makes the impressions from a rubbed stamp, illegible from excess of ink, that requires blotting?

“Better Doctoring for Less Money” by Dr. Richard C. Cabot of Boston, published in the American Magazine for April, with an illustration of the author and his family, has been condemned by the St. Louis Medical Society as a “gross violation of ethics” while it is mentioned with approval in the newspaper advertisements of Pierce’s Institute of Buffalo. We have previously considered publications of this general nature, and have expressed the opinion that there should be one rule of ethics for all physicians, irrespective of prominence and some means for controlling the publication of articles in lay periodicals. Dr. Cabot’s article contains much that deserves professional attention but obviously, what may do much good and be strictly true in a meeting of physicians is very liable to do great harm and to give false impressions when read by laymen as a criticism of the profession by a distinguished member. The members of a congregation assembled for worship, properly designate themselves as sinners, according to divine standards but it would be neither

wise nor truthful for a prominent member of the congregation to publish a letter in a newspaper denouncing his fellows in similar terms, to be accepted by critical outsiders according to worldly standards.

Second Class Postage. Mr. Randall of California has introduced in the House of Representatives, a bill changing the rates for publications as follows: 1st, 2d and 3d zones (within 300 miles) 1 cent a pound; 4th zone (to 1000 miles) 3 cents; 6th zone (to 1400 miles) 4 cents; 7th zone (to 1800 miles) 5 cents; 8th zone (over 1800 miles) 6 cents. This requires some additional trouble in sorting mail but seems reasonable. Periodical literature can no longer be considered as, in the aggregate, distinctly educational, nor requiring special favors at the expense of the P. O. Dept.

N. Y. State Commission for Boy Training. The Slater-Welch law provides that all pupils in public and private schools, over the age of 8, shall have physical training for not less than 20 minutes daily. The commission includes the Major-General commanding the National Guard, a member appointed by the Board of Regents and one by the Governor, who has designated Dr. George J. Fisher, a graduate in medicine of the Cincinnati College of Medicine and Surgery, 1898, editor of Physical Training, who has had large experience as a teacher of physical training and prominent in Boy Scout work.

Training Camps for Medical Men were conducted at Plattsburg, for 2-week periods beginning July 12 and 24.

The General Education Board, 61 Broadway, N. Y. City, has appropriated \$2,920,874 for medical schools, out of a total of \$13,386,968. This represents a far greater proportionate recognition of the needs and merits of medical education than is usually shown by either private or public philanthropies.

National Board of Medical Examiners of the U. S. This board was established largely through the interest of the late Dr. W. L. Rodman, President of the A. M. A. 1915, and is endorsed by the A. M. A. and a number of other national and regional societies. The provisional board consists of Surgeon General W. C. Braisted, U. S. N., President; the surgeons general of the other government services, a representative from the Federation of State Medical Examining Boards and a number of physicians prominent in educational lines. The permanent board is to include the Surgeons

general of the three government services and one other member from each, three representatives of the Federation of State Medical Examining Boards and six members at large to be chosen by the board itself. Quarters have been assigned in the Army Medical Museum, for examinations and facilities for examination in laboratory work, etc., will be afforded by other government medical institutions. For medical graduates of 1912 and later, a 4-year high school course and 2 years of college work including physics, chemistry, biology and a modern language will be required; also graduation from a Class A college and one year's service as interne in an acceptable hospital or laboratory. Equivalent credentials may be accepted by the board for graduates prior to 1912. The examination will be rated according to the following schedule: -

1. Anatomy	100
2. Physiology	75
3. Chemistry and Physics.....	75
4. Pathology and Bacteriology.....	100
5. Materia Medica, Pharmacology, and Therapeutics	75
6. Medicine	200
7. Surgery	200
8. Obstetrics and Gynecology.....	100
9. Hygiene and Sanitation.....	50
10. Medical Jurisprudence	25
Total.....	1000

A passing mark of 75% will be required in each subject. The fee for registration is \$5. The certificate issued by the board has no present value toward obtaining a license but it is expected that it will ultimately be recognized by all state boards. A second but no further examinations will be allowed in case of failure. This is a great step in the right direction. It may be questioned whether educational requirements in advance of those established by law, for any given state and period should be made—at least without giving candidates the privilege of making up the requirements by private study. Still more questionable is the restriction to Class A colleges and “acceptable” hospitals. The selection of a medical school is usually made at an immature age and subject to various local and economic considerations. Appointment to an acceptable hospital is often entirely beyond the powers of the graduate and is not entirely dependent on individual merit. It is impossible from the mere numeric factors involved, that every graduate should obtain a satisfactory hospital position. Due allowance should be made for these limitations and, at least, opportunity should be

given for making up deficiencies in early training of any kind. This is not merely the expression of an opinion based on democratic principles; we do not see how legal acceptance of the certificates issued by the Board can be accomplished unless full recognition is given to the legal status of all possible candidates in accordance with legislation existing at the time of their matriculation. Otherwise, while the certificate may be an honor, it is doubtful whether it can serve as a pass port to licensure.

Actions in the U. S. Court have been begun as follows: against Gioia, Bellanca & Co. with adulterating macaroni, shipped from Rochester to Scranton, by use of artificial coloring matter and inferior grade of flour; also labeling as made in Italy a product made in Rochester; against S. C. Wells & Co. of Leroy, with misbranding (in the sense of attributing therapeutic powers not established) a product called Dr. Carter's K. & B. Tea; against the Moone Chemical Co. (for the same reasons) for misbranding a product known as Emerald Oil.

Shrine Convention in Buffalo, Week of July 10. Dr. Edward A. Southall served as Chairman of the Committee on General Medical Safety and Dr. C. E. Stewart took special charge of the bands and patrols. Boy Scouts in large numbers and several city nurses, assigned by the Health Commissioner, assisted. About 80 cases, mainly heat prostration and minor accidents were treated, none being serious. The Homoeopathic Hospital donated its services to Shriners. In spite of the enormous congestion of traffic, especially on the evening of the parade when streams were diverted onto streets usually little crowded, and without available traffic police, no serious auto accidents were reported.

The Vinum Cardui Suit against the A. M. A. has been won by the plaintiffs, one cent damages having been awarded. Of course, court costs, attorneys' fees and even the publication of the full notes of the trial, have totaled a sum that would be staggering to a private enterprise. We can understand the nominal damage verdict in cases of innocent and harmless trespass on property or of assault under extenuating circumstances, where the general principles of property and personal rights are well established and must be upheld but when no real injury has been committed or the offender appeals to a sense of mercy by his weakness or is justified by

general ethical principles contrary to the letter of the law. But, in the present case, a real damage has undoubtedly been done to the plaintiff. With no excitement or personal malice but for reasons which the medical profession at least can understand, there was the deliberate intent to inflict such damage. The A. M. A. makes no appeal for clemency on the ground of weakness. It is a strong body, influentially, numerically and financially. While the damages originally asked, \$300,000, may be considered excessive and would have been a serious loss to the A. M. A., no ordinary amount of damages would have materially increased the expense incurred by the suit. It is true that the medical profession is almost united in believing that the ethical principles involved surpass the legal principles involved in published libels but the case has no analogy to violations of the law when personal honor or deep emotions are called into account. The case is one of many that might potentially arise and involves a general principle. Thus we feel that it would have been more satisfactory even to the defendant if the decision had been more definite. Either an organization considered as such, or a publication, has the right to denounce the claims and methods of those whom it regards, in good faith, as wrong doers, or professional considerations of ethics must be subordinated to the law as it stands. The future policy of the medical profession—and by analogy, other professions and organizations in what each regards as reform propaganda—would have been definitely established by a dismissal of the claim. If substantial damages had been awarded, it would have determined either a policy of very mild protest or would have opened the way to seek legislation which would allow reform propaganda of a vigorous nature. Under present conditions, no one knows where the matter stands. Each side has suffered a financial loss and neither can claim a substantial victory.

Death of Centenarian. Mrs. Mary Monroe of Binghamton, died June 28, after a brief illness, aged 105 years and 8 months.

Chlorin Treatment of Water, is being considered by Geneseo, which is supplied from Conesus Lake. It is also proposed to cover the reservoir to prevent the growth of red algae which produce a characteristic fishy taste. We understand that no gross contamination has occurred, although there is always the danger of typhoid when the water shed cannot be completely guarded.

The Metric System. The European War is undoubtedly familiarizing our people with metric units. One news report states that the German government is seizing considerable quantities of rubber, supposed to be smuggled into the country, paying for at the rate of 5 marks per "goligram."

Sunstroke. As noted, the Shriners' parade in Buffalo, although engaging large numbers, including many elderly men and having the unfavorable factors of a considerable exposure to the hot sun in apparently heavy uniforms, resulted in only a few mild cases of heat prostration. Two or three spectators were similarly affected. A moderate number of other cases have been reported. The first death of the season occurred in Buffalo, July 12, in the person of a laborer, aged 50, in the Erie R. R. yards. Rochester had one death the same day, the temperature being 92 and the humidity excessive. Four deaths from sunstroke occurred in Buffalo on July 20, and five other serious cases were under observation.

Niagara County Tuberculosis Hospital. The Joint Committee has approved the site south of the old almshouse farm, near Lockport, and the Lockport Board of Commerce, Niagara Falls Board of Trade and Niagara Falls Tuberculosis committee have added their endorsements. \$100,000 has been appropriated for a hospital, originally planned to have 65-75 beds but the Joint Committee estimates that 100 persons actually needed such accommodations at present.

Infantile Paralysis Epidemic. 277 cases were reported in N. Y. City for June and 10 outside the city but mostly in adjacent counties. Up to July 11, 1278 cases had been reported in N. Y. City with 270 deaths; 26 cases outside the city for June and 48 since July 1. (Note: The discrepancy in the up-state figures is undoubtedly due to delays in diagnosis and reports). July 15, the N. Y. City cases reported for the 24 hours ending 10 A. M. numbered 144 with 27 deaths. July 16, new cases numbered 96, deaths 17. The first Buffalo case developed July 14, in a child who had visited in Brooklyn. A second case was reported July 17 but the diagnosis was later changed. July 19, the N. Y. City cases reported in the last 24 hours numbered 143 and the deaths 30. Dr. Chas. E. Banks of the U. S. Public Health Service assumed charge of the fight against the epidemic at this date. July 19, the up-state reports for the last 24 hours were 15 with no deaths, the total of up-state cases to date being 161. We have received no confirmation of the report that the germ has been isolated. The campaign is being waged by both Federal and State and local health authorities

in accordance with principles familiar to the profession and every effort is being made toward public instruction. July 20 N. Y. City cases totaled 2246, deaths 458. July 21 a case was reported from Warsaw, and two doubtful ones from Dunkirk. July 23 one of the Dunkirk cases was reported positively, the total up-state cases being 211. July 22 the N. Y. City cases reported for the 24 hours, numbered 135 with 39 deaths; July 23, 115 cases with 23 deaths. The State Board of Health has made plans for the establishment of temporary laboratories, two on Long Island, as Brooklyn is regarded as the most serious center of infection, and one near Kingston. Adrenalin has been announced as favorably influencing the course of the disease.

Care for Superannuated Physicians. We earnestly request our readers to reply to the questions at the end of the editorial in the July issue. Some have been received already but the matter can reach a practical issue only by co-operation.

A Professional By-Product. The Journal of the Indiana State Medical Assn. repeats, as a definite occurrence, the old story of the man who engaged a physician to attend his wife, at some distance, rode out with him—this time in an auto, the story first appearing prior to the horseless age—discharged and paid him on his arrival, explaining that the charge was less than for a livery. Some years ago, a country physician offered an almost illiterate farmer half of his professional earnings, if the latter would furnish him a “rig” and drive him to his calls; and the offer was refused. The average professional fee would not, as a rule, exceed the charge for transportation to and from the patient’s house, by a horse or auto livery. Neither is it more than a plumber would charge, say for thawing out a pipe that was not burst. It is somewhat humiliating to have thus impressed the economic fact that the average professional service is about equal to that of a comparatively uneducated and unskilled laborer, plus a horse and buggy or automobile or set of tools. Still, there is something to be said on the other side. All of us are guilty, if the term be allowable, of purchasing a service or a commodity for its by-product. We take a Turkish bath as a substitute for a hotel room, or a street car trip to keep dry in a sudden shower, or we buy an article or subscribe to a magazine for the sake of the premium. If a physician can afford to make a professional call and furnish his transportation for a price lower than that of the average livery—as he certainly can and usually does—one may view philosophically the occasional times when we are used for

the latter purpose, alone. It happens to most of us once in a life time. If our services compare in actual demand-value, with some very humble vocations, it is only fair to remember that, theoretically and to a large degree practically, we represent about the same kind of human material as enters into these other industries. Moreover, like any other industry, medicine is paid according to the law of supply and demand and no one can question but that, with some few local exceptions, the supply very much exceeds the demand. Again, education is a wide-spread, easily available factor in human value. Very seldom does it involve serious hardship in these days. On the contrary, it is a rather pleasant occupation. For work of the ordinary kind, manual or clerical, it makes little practical difference to the purchaser of labor or its products, whether the labor emanates from one who has had the minimum which the government now allows or the few years' more which the government urges him to accept free, except for his maintenance. Thus, generally speaking, we do not find any conspicuous difference between the pay of the grammar school and the high school graduate, after a few years. With about a tenth of the youth of the country possessed of a high school education and with a large proportion of young adults continuing their education by attendance at night schools, by reading and use of lecture courses, museums, etc., and by definite training along some particular line of usefulness, the devotion of a few years more of adolescent life to formal educational, scholastic or professional or both, does not create an abyss between ordinary trades and businesses and the so-called learned professions, which purchasers of the ultimate products of human industry will regard with much awe. In one sense, education remains a priceless jewel but we cannot place it within the reach of all who will make a little effort or who have a normal parental support and at the same time, maintain its former high commercial value. If we rate our professional dignity in financial terms, we must not blame the public for basing our financial value on a commercial basis of what our services are worth according to market conditions, especially when we ourselves are to blame for overstocking the market.

OUR CONTEMPORARIES

A story is told, sometimes in dialect, of a person who listened calmly to a torrent of abuse and then replied "All you have said I am, you are and then some." Editors who

have expressed themselves on the subject of rolling manuscript and who roll their own journals before mailing, are requested to take notice.

The Medical Economist of 140 a, Floyd St., N. Y., is campaigning to eliminate the Boylan Law and asks the co-operation of the profession in signing a petition. While the intent of the law is excellent, it complicates professional duties, especially as the national Harrison law suffices and practically duplicates the safeguards against narcotic addiction, with numerous puzzling details of conflict.

Do you know that it is pleasanter to be well than sick?

That being comfortable is more agreeable than being uncomfortable?

That, for some of us, it is as hard to get money, when it is "easy" as when "tight?"

That toothache is unpleasant?

That bellyache unfits one, temporarily, for polite society?

That corns provoke profanity?

That fishermen are truthful but imaginative?

That all automobilists are not in the best society?

That health board men are not necessarily wiser than others?

T. W. in Homoeopathic Recorder. We heartily agree that this is quite as good as the majority of propagandist stuff that begins in the same way.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

Lake Keuka Medical & Surgical Assn. 17th annual meeting at Keuka College Auditorium, July 13-14. Program:

1. President's Address, Homer J. Knickerbocker, M. D., F. A. C. S., Geneva, N. Y.

2. "The Control of Typhoid Fever in the State," Fred M. Meader, M. D., Albany, N. Y.

3. "Manner of Infection in Some Cases of Puerperal Sepsis," Charles F. Neider, M. D., Geneva, N. Y.

4. "Concealed Infections of the Genito-Urinary Tract," Arthur H. Paine, M. D., Rochester, N. Y.

Discussion opened by Thos F. Laurie, M. D., Auburn, N. Y.

5. "Prognostic Value and Clinical Application of Studies in Retention," Richard N. DeNiord, M. D., Buffalo, N. Y.

Discussion opened by Frederick J. Parmenter, M. D., F. A. C. S., Buffalo, N. Y.

6. "The Patient Before, During and After the Anesthetic," Charles S. Hunt, M. D., New York.

7. "The Value of the Clinical History in the Diagnosis of Gastric and Duodenal Ulcer," George Eusterman, M. D., Rochester, Minn.

8. "Roentgenological Findings in the Diagnosis of Intraabdominal Conditions," I. Harris Levy, M. D., Syracuse, N. Y.

9. "Methods and Results in Surgery of the Stomach and Intestines," George W. Crile, M. D., F. A. C. S., Cleveland, O.

Discussion of papers of Drs. Eusterman, Levy and Crile will be opened by Donald Guthrie, M. D., F. A. C. S., Sayre, Pa.; John M. Garratt, M. D., Buffalo, N. Y., and Ross G. Loop, M. D., F. A. C. S., Elmira, N. Y.

10. "The Nature of Acidosis in General, with Report of Observations on Acidosis in Diabetes," Donald D. VanSlyke, Ph. D., New York.

Discussion opened by John R. Williams, M. D., Rochester, N. Y.

11. "Pathological Diagnosis," Burton T. Simpson, M. D., Buffalo, N. Y. Read by title.

12. "Spinal Injuries, Commonly Known as Broken Neck or Back. A Preliminary Report Based on Fifty-two Cases," Lee A. Whitney, M. D., Rochester, N. Y.

13. "Acute Mastoiditis. Diagnosis and Treatment, with Special Reference to X-ray Diagnosis," John F. Fairbairn, M. D., F. A. C. S., Buffalo, N. Y.

14. "Gynecologic Diagnosis," Aaron B. Miller, M. D., F. A. C. S., Syracuse, N. Y. Read by title.

Officers for 1916: Pres. H. J. Knickerbocker, Geneva; V. P. J. R. Wiseman, Syracuse; Sec.-Treas. E. C. Foster, Penn Yan; Rec. Sec. W. W. Smith, Avoca; Committee of Arrangements, E. C. Foster, Penn Yan; P. L. Alden, Hammondsport; Fred Maloney, Dundee. Dr. I. Harris Levy of Syracuse was elected President and L. C. Lewis of Belmont V. P. for 1917, the secretaries being re-elected. Dr. Lesser Kauffmann of Buffalo was elected a member of the Council. Cayuga, Cortland and Tompkins Cos. were added to the list, making a total of 20.

The Rochester Academy of Medicine held a special

memorial meeting in honor of the late Dr. John F. W. Whitbeck, July 5.

The Cremation Association of America will hold its 4th annual convention at the Hotel Gibson, Cincinnati, Aug. 24 and 25. The number of crematories in Germany is now 48. The U. S. has 53 with 2 in contemplation. German incinerations totaled 76,350 through 1915, American 86,006 through 1913. The first crematory in the U. S. was built by Dr. Francis Julius Le Moyne, a graduate of the University of Pennsylvania, at his own expense. All interested are invited to attend and may secure associate membership by remitting \$1 to E. P. Samson, 433 Sixth Ave., Pittsburgh. The Secretary is Dr. Hugo Erichsen, 240 Chandler Ave., Detroit.

The Medical Societies of the Counties of Allegany, Genesee, Livingston and Wyoming held a joint meeting at Glen Iris, Letchworth Park, July 25. The program was as follows:

“Methods of Resuscitation; with a Demonstration of the Pharyngeal Insufflation Apparatus for Artificial Respiration in Man.” by Dr. S. J. Meltzer, Director Rockefeller Institute for Medical Research, New York City.

“Modern Methods of Teaching Surgery.” (Motion Pictures). Bloodless Amputation of the Hip Joint, by Dr. John A. Bodine. Nephrotomy and Nephrectomy, by Dr. Charles H. Chetwood. Radical Cure of Inguinal Hernia, by Dr. John A. Bodine, New York, Polyclinic Medical School, New York City.

The transactions of the **Alumni Ass'n of the Medical Dept., University of Buffalo**, promised for this issue, have been delayed, as some of those responsible for details of the minutes are out of town, on military duty or private business. Space was held till July 24, when it was necessary to close the forms. The transactions will probably be published in the Sept. issue.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. John F. W. Whitbeck, University of Pennsylvania 1870, died at his home in Rochester, N. Y., July 3, after a cardiac attack of three hours' duration. He had apparently been in

excellent general health and went to his office as usual and then to another physician's office, where he first noticed symptoms of cardiac failure but was able to be taken home. He was a graduate of the University of Rochester in arts. He was born in Lima, N. Y. 72 years ago. After graduating in medicine, he studied in Germany and other European countries for three years, locating in Rochester in 1873 and specializing in surgery and gynaecology, though a conservative operator. His father practiced medicine in Rochester for over 40 years. Dr. Whitbeck was a member of the various local medical organizations and of those affiliated with the A. M. A., the American College of Surgeons, and others, and was for many years a member of the staff of the Rochester General (formerly City) Hospital, where as interne we had the opportunity to assist him in his work and to appreciate both his surgical and general medical skill and his kindly disposition. He was one of the kind of men who acquire success and recognition by leading rather than by pushing. He was largely instrumental in the establishment of Iola Sanatorium—a model institution for the relief of tuberculosis—and was President of the Board of Managers. He had served as President of the Rochester Academy of Medicine and of the Medical Society of the State of N. Y.

Dr. Clarence V. Gray, Buffalo 1887, died at his home in Batavia, July 6, after an illness of two weeks. He practiced medicine in Elba for 20 years and then took charge of the Primrose Sanitarium which he has since conducted.

Dr. J. B. Drake, P. & S., Baltimore, 1882, of Norwich, Chenango Co., died suddenly at the wheel of his automobile, July 12, the car running into the lobby of the Colonial Theatre but doing no material damage. He had practiced medicine in Norwich for 15 years. His age is stated at 50, which does not correspond with the date of his graduation in medicine.

Dr. Walter H. Bills, Buffalo 1870, died at his home in Allegan, Mich., July 10, aged 69.

Sir Victor Horsley died of heat stroke in Mesopotamia on July 16.

IN MEMORIAM

Whereas, It has pleased God in his mercy to take the spirit of our beloved member into His kingdom, we the Physicians'

League feel that our esteemed friend, Dr. Ida C. Bender, always stood for the highest and best in the field of her activity, education and medicine, and applied the very best the world has to give to the mental uplift and the physical well being of the youth of this community,

Whereas, She held a position of the first rank in the educational world and applied her medical knowledge in a broader and more far-reaching way than the average physician has the opportunity of doing,



Whereas, We always appreciated Dr. Bender's rare personality which exerted a beneficent influence on all who came within the sphere of her influence, to higher and better things,

Therefore, Be it resolved that the Physicians' League extend to the family and Miss Louise M. Lapey, her friend of lifelong devotion, our deepest sympathy in their bereavement, and that we cause to be sent to the family a copy of these resolutions.

DR. NATHALIE MANKELL,
President.
DR. JEANETTE HUMMELSBACH,
DR. MARIE WOLCOTT,
DR. ALICE BENNETT,
Committee.

PERSONAL.

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. G. B. Broad and family, of Syracuse, are spending the month of July at Star Lake.

Dr. Fred. Flaherty and family, of Syracuse, are spending the month of July in the Adirondacks.

Dr. I. H. Levy, of Syracuse, was elected President of Lake Kueka Medical Association.

Dr. Geo. K. Smith has just finished his service as interne at St. Joseph's Hospital, Syracuse, N. Y., and is now associated with his father, Dr. F. W. Smith, 1350 So. Salina Street, Syracuse, N. Y.

Dr. Roland O. Meisenbach of Buffalo left July 15 for a motor tour to Maine.

Dr. Julius Ullman of Buffalo spent the latter half of July in the Adirondacks.

Dr. A. C. Way of Perry is at Saranac Lake.

Dr. George R. Critchlow and Dr. R. Montfort Schley of Buffalo, attended the training camp at Plattsburg during July.

Dr. Clayton W. Greene, of Buffalo, 1st Lt. U. S. Reserve Medical Corps, was ordered to Columbus Barracks, O., in July, to administer typhoid vaccine.

Dr. H. H. Glosser, Buffalo, 1st Lt.; G. McKay Hall of Buffalo 1st Lt. and Arthur C. Scafer, Capt., are on duty with the 74th Regiment on the border.

Dr. Walter C. Montgomery of N. Y. City has been appointed Surgeon and Major in the 74th Reg. vice Dr. Edwin L. Beebe of Buffalo, Major, transferred to the 12th Reg.

Dr. Henry Adsit of Buffalo, Capt. 1st Cavalry, attached to Troop I is with that body on the border.

Dr. John D. Howland, Lt. Col. of the 65th Reg., now the 3d Artillery, is with the Regiment at Camp Whitman.

Dr. N. Victoria Chappell and Miss E. Mae Chappell of Buffalo returned from a western trip about the first of July.

Dr. C. W. Hennington of Rochester has moved to 633 Park Avenue. He is taking a vacation at Point Abino, Ont.

Dr. Charles E. Glidden of Little Falls has accepted a position on the Staff of the Jackson Health Resort at Dansville.

Dr. Max Breuer of Buffalo spent July in the Adirondacks.

Homer A. Trotter, Ph. B., M. D., of Buffalo, has left for New York City to take a post-graduate course in the Post-Graduate Medical school and the Manhattan Ear, Nose, and Throat Hospital and Medical School.

Dr. Oscar Oberkircher, of Buffalo, has left for New York City where he is taking special work in general surgery.

Dr. Hugh J. Linn, (Univ. of Penna, Medical, 1878), formerly of Buffalo, who has been in San Francisco for some years and practicing there, has just been appointed to a professorship in the College of Physicians and Surgeons of San Francisco.

Two diamond stick pins and a gold ring were stolen from the residence of Dr. John H. Pryor of Buffalo about the middle of July, the exact date being unknown.

The residence of Dr. Charles W. Clendenan of N. Tonawanda was damaged by fire to the amount of \$500 early in the morning of July 18.

Dr. Frank E. Brundage of Buffalo took an auto trip to Pennsylvania the latter part of July.

Dr. Milton H. Goldberg of Buffalo toured to Albany, N. Y., Boston and Philadelphia in July.

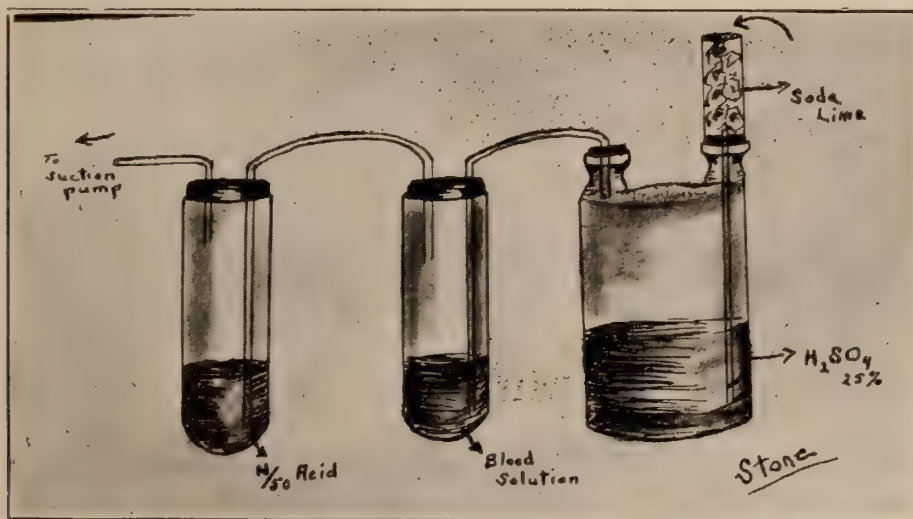
Dr. I. Harris Levy of Syracuse succeeds the late Henry L. Elsner as Prof. of Medicine in Syracuse University.

ABSTRACTS.

Have you ever felt that this department of the BUFFALO MEDICAL JOURNAL was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Blood and Urine, Nitrogen and Urea. Chester T. Stone, Brooklyn, Med. Times, Mch. (Cut by courtesy of author and editor).

An easy and efficient method of determining urea and urea nitrogen has been solved by the use of the soy bean. The apparatus may or may not have the Wolf bottle as shown. In case it is not used the drying tube is attached to the blood solution tube.



Apparatus for determination of urea and urea nitrogen by the use of the soy bean.

Urine.—Take 5 c.c. urine diluted ten times, add one c.c. amyl alcohol, one c.c. 15% soy bean* close and let stand 15 minutes to 20° C. or 3 minutes at 50° C. The tube marked N/50 Acid contains 25 c.c. 50th normal HCl. Aerate for one half minute after reaction is complete, quickly open tube and add dry potassium carbonate 4-5 grams, close and aerate 15 minutes when all the ammonia gas will have been carried over into the acid. Titrate the acid solution to neutrality with N/50 NaOH. indicator one drop 1% sodium alizarin sulphonate solution. The number of c.c. of N/50 acid neutralized by

the ammonia is multiplied by .12 to give the per cent. urea, or by .056 to give per cent. urea nitrogen.

Blood.—Take 5 c.c. fresh drawn blood in one c.c. 5% citrate solution and add a few drops amyl alcohol and one c.c. 10% solution soy bean. Proceed as for urine except 10 c.c. of acid are used and .012 is multiplied for per cent. urea or .0056 for per cent. urea nitrogen.

Radiculitis. In the *Revue Ueurolgique*, Paris, March 1916, under the term radiculitis, Deyerine describes a syndrome consisting of sensory or sensori-motor symptoms in the distribution of the spinal nerves and which is produced by an inflammation of these roots within the meninges.

The most important clinical manifestation is pain of a neuralgic character, which is spontaneous and continuous with frequent exacerbations of violent character, and which are described by the patient as a tearing or breaking pain. The pains sometimes occur in the form of lancinating or so-called root pains.

These pains are not increased by movements nor by pressure on the muscles or nerve trunks as in neuritis, and, in the sciatic type of radiculitis the sign of Lasegue is also frequently absent.

Movements which exert traction on the roots themselves are very painful, such as inward rotation of the thigh when flexed on the abdomen. A characteristic sign is the exaggeration of the pain on coughing or sneezing, which is nearly always present during the early or inflammatory stage of the process.

Various paraesthesias as tingling, numbness, heat and cold are frequently observed and these sensations have an accurate root distribution.

Objective disturbances of sensation as diminution or even complete loss may be found.

Motor disturbances are sometimes added to the sensory symptoms, constituting the sensori-motor type. These motor symptoms consist in weakness or even complete paralysis limited to the root areas involved. The paralysis is of the flaccid type and associated with muscular atrophy.

The disease may occur in various forms,—acute, sub-acute or chronic, depending on the rapidity and intensity of the inflammatory process.

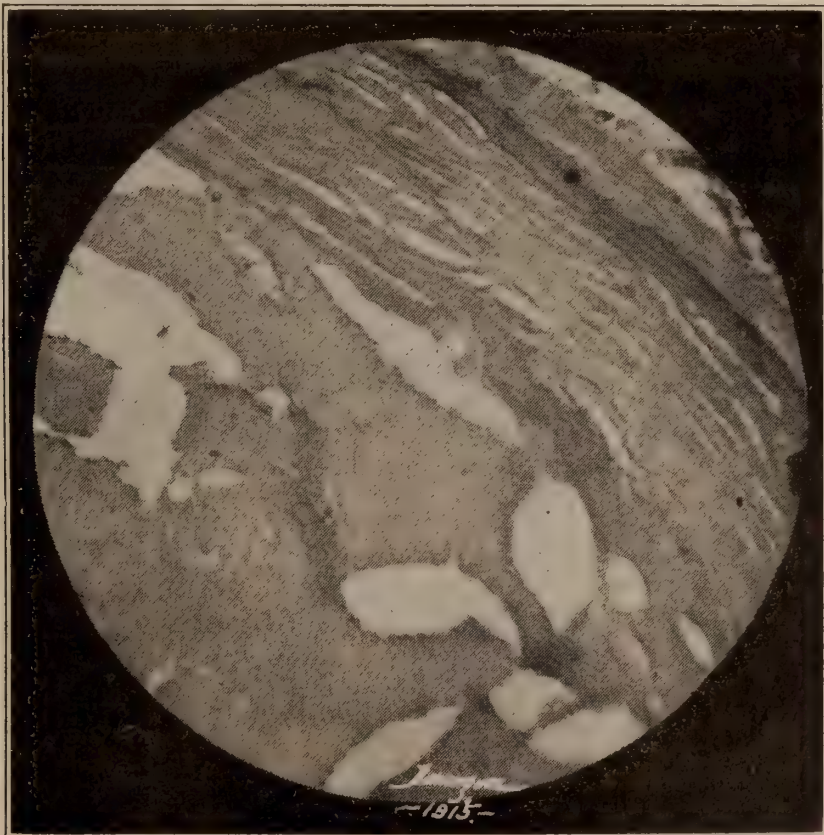
The most frequent etiological factors of radiculitis are syphilis and tuberculosis. Cerebro-spinal meningitis and other infections involving the meninges, either directly or secondarily, may also produce it. According to Dejerine 80% of the cases are due to syphilis.

Pathologically the process is shown to be a localized menin-

gitis surrounding the roots, or involving the meningeal sheath which accompanies the nerve roots. The meningeal sheath of the posterior root is always larger and deeper than that of the anterior root, and where it surrounds the root at the junction of the ganglion a point of least resistance is formed, and this is the reason for the predominance of the sensory symptoms over the motor disturbances. An important diagnostic point is obtained by lumbar puncture,—the spinal fluid showing a lymphocytosis, especially in recent cases.

Treatment. As most of the cases are of syphilitic origin the specific treatment is usually effective, especially the local treatment by intra-dural injections. In the non-syphilitic cases, Deperine recommends the local treatment with normal saline solution containing one-half percent of novocaine. In the severe cases which do not yield to any therapeutic measures, section of the posterior roots may be necessary to relieve the pain.—E. A. S.

Concretions of the Spleen, Benjamin Jablons, San Francisco, Calif. State Jour., Mch. Sailer reported a case to the Philadelphia Pathological Society, 1897, the stone being 1/2 c.m. in diameter, with smooth surface, probably forming in



an old thrombus. It was found at necropsy in an old man, cause of death not stated. Orth had alluded to the subject without details. Dufour, Bull. et Mem. de la Soc. Med. des Hop. de Paris, 1903, reported a multiple case, also found at

necropsy in an old man, who had had chronic bronchitis and emphysema and who showed lesions of healed tuberculosis. The spleen appeared normal but six calculi were found on section, about the size of cherry pits, and surrounded by a sort of capsule. Ca, Mg and Na carbonate and phosphate were found chemically. There was also a similar stone, the size of a pin's head in the liver. Defour considered them as probably calcified tubercles, possibly hydatid cysts. These are the only cases that Jablons could find in the literature.

Jablons's case occurred in a man with ulcerating cancer



of the penis with metastases to the inguinal glands. The history was not significant except for yellow fever 40 years earlier. At necropsy, extensive arteriosclerosis, emphysema and chronic bronchitis were found. There was no evidence of tuberculosis except possibly a plastic pleurisy. The spleen was somewhat enlarged, 105 grams, 7.5x6x2 c.m., and there had been some perisplenitis. The multiple calculi are shown photographically and by a radiograph of the spleen. The author's explanation is that there was first an interstitial splenitis, with dilatation of veins, thrombi and ultimately calcification. (See photomicrograph). Cuts by courtesy of author and editor.



Vitamines. Marvin D. Schie, Cleveland Med. Jour., April. These exist in minute proportions (yeast, which is very rich in them, yielding 2.5 grams per 100,000) in natural food stuffs. Their chemic nature is not well understood and it is not even possible to say that they are chemically related. They are necessary to growth of animals and their absence produces deficiency diseases, such as osteomalacia, rickets, pellagra, beriberi and scurvy. On the other hand, experiments on chickens fed on polished rice and hence lacking in vitamines which are contained mainly in the seed coats, show them to be immune to Rous' sarcoma and other experiments seem to corroborate the idea that their absence inhibits tumor growth in general.

Allen Treatment in Diabetic Gangrene. J. F. Baldwin, Am. Jour. of Surg., Feb. reports a case in which sugar and diacetic acid disappeared from the urine though sugar remained in the blood. The general though not the local condition improved. Amputation was performed Jan. 5, without incident but the patient died Jan. 7 in coma. Only one previous case is recalled in which coma developed so rapidly. (Note: This case should not prejudice one against the Allen treatment which, indeed should be considered judicially till a considerable mass of favorable and unfavorable evidence has accumulated).

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SEPTEMBER, 1916

Number 2

ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Methods and Results in Surgery of the Stomach and Intestines*

GEORGE W. CRILE, F. A. C. S., Cleveland.

Although during the last two decades the accuracy of the diagnosis of stomach and intestinal lesions has been greatly advanced and the mechanical technique of operations on these parts has reached a high degree of perfection, yet even in the best clinics the mortality of resections of the stomach and intestines has been reduced but slightly. Reflecting on this fact a few years ago, and being dissatisfied with my own results I concluded that further progress could be made only through a fundamental change in our conception of the problem presented by these cases.

Laboratory and clinical researches were undertaken therefore which soon disclosed certain facts which seemed to point the way to a far greater control of the fate of these patients.

As a result a practical method was evolved which has now been employed by my associate Dr. W. E. Lower and myself in 132 planned operations for lesions of the stomach and duodenum.

A study of the case histories of patients operated upon by older methods shows the principal cause of the former high mortality was not hemorrhage, not infection, not pneumonia, not a vicious circle—though each of these factors, especially infection, took a certain toll; but the principal cause of death was another insidious factor, which when once recognized became extremely obvious.

Let us first consider the clinical picture of a case with

*Read before Lake Keuka Medical and Surgical Association, Keuka Lake, New York, July 13, 1916.

pyloric obstruction, presenting the typical symptoms of the first stages of final dissolution. The face is grave, the manner dejected, the ambition lost, the complexion sallow, the pulse soft, the extremities cold, the tongue furred, the temperature normal or less than normal, the respiration somewhat accelerated, the urine scant and high colored, and the telltale lips strikingly red. The slightest exertion causes exhaustion, and—of more significance—causes respiratory distress. The patient comes to the surgeon not of his own volition—he has no will for anything but wishes to be left alone. He comes because he has been advised by his physician to make one supreme effort to turn from the threshold of the tomb.

The history of one of my own cases illustrates well the course and the fate of a patient presenting such a picture as this. In this case, the lesion was a small but obstructing pyloric cancer. The patient was borne to the hospital on a stretcher, and a large transfusion of blood was given, as a result of which the face became full and pink, the pulse strong, and the outlook for operation seemed bright. Gastroenterostomy and pylorectomy were performed. At the close of the operation all seemed well, yet the patient—without hemorrhage, without infection, without pneumonia, apparently without cause as it seemed to me then—gradually and continuously failed until his death on the second day. Literally ‘a successful operation, but the patient died.’

Now the outstanding features of this case were a steady inexorable loss of muscular and mental power, an unexplained increase in the depth and the rate of respiration, pink lips, paradoxically pink lips, and acetone breath. What surgeon has not learned to fear the outcome for the patient with increased respiration and pink lips? What surgeon but hesitates to give inhalation anesthesia to a patient with increased respiration and a subnormal temperature?

The cause of the death of my patient and of many like him was acidosis. His reserve alkalinity had been virtually expended before the operation. The acid-producing inhalation anesthetic, and the extensive operation without local nerve blocking used up his entire reserve alkalinity and at the close of the operation the patient was potentially dead.

On what basis is this statement made? Why was the respiration increased, the temperature low, the brain so powerless, the lips so red? First of all, life is projected in an alkaline medium; and life ends when alkalinity is overcome. All the tissues and fluids of the body except urine, which is an excretion, are alkaline, and when the body fluids become neutral or acid, death automatically follows. The maintenance of the body temperature, muscular action,

physical injury with or without inhalation anesthesia, emotion—every process of life—is accompanied by the formation of acid by-products. Under normal conditions these constantly formed acid by-products are neutralized and the normal alkalinity of the body is maintained by the alkalies and bases normally stored in the body, and by the regulative action of the respiratory system, the liver and the kidneys.

As one would expect, the main sources of the vast potential alkalinity of the body must be the alkalies and bases derived from food. When a patient is starved by vomiting, therefore, his reserve alkalinity steadily falls until even the relatively slight acid-production resulting from his diminished activities cannot be neutralized.

As the acidity rises the respiratory rate is increased in order that the carbonic acid gas may be eliminated. The power of the blood to carry oxygen decreases simultaneously with the increased intake of oxygen consequent upon the increased respiration, hence the pink lips and reddened mucous membranes—signs of the increased amount of free oxygen in the blood. This condition is known as pink asphyxia and may be produced experimentally by giving an animal hydrochloric acid intravenously.

The intense thirst manifested by these patients is another obvious sign of diminished alkalinity as is the mounting temperature. The experienced clinician understands that this last sign indicates the last critical stage before death. The physical chemist knows that it means that the available stores of alkalies and bases have become exhausted and that the acids are therefore combining with the ammonia of the living protein molecules, the destruction of which produces the fever.

If the real hazard in these cases, is a depleted reserve alkalinity, as these premises would indicate, then the obvious problems are first—to ascertain the factors in the operation which make a further drain upon the reserve alkalinity, and second—to discover means by which to increase the reserve alkalinity.

It is obvious that no methods will avail in those cases in which the living molecules are beginning to break down. For the starved case with ruby lips, that pits on pressure, and above all, that has a rising temperature—resurrection, not operation is indicated.

All cases should have food and water, and glucose and sodium bicarbonate pushed before operation. Those cases which are nearing their ultimate acidity may be rescued by the method of von Eiselsberg; that is, by bringing up a loop of the jejunum under local anesthesia and feeding through it.

As we have stated already, surgical trauma diminishes reserve alkalinity. Therefore, in all but unquestionably good risks, in which the diagnosis is clear, a two stage operation is indicated. First a gastro-jejunostomy, resection being deferred until the functional balance is restored and the basic factor of safety is increased—usually about ten days. Thus the surgical injury is not only divided but the second and major portion occurs under improved conditions.

In our clinic each stage is performed under the technique of anociation, that the acid by-products incident to surgical trauma may be reduced to a minimum. Nitrous oxid is given in preference to ether, since we have found that nitrous oxid measurably protects the brain, the adrenals and the liver against the damaging effects of trauma of the operation, while ether not only does not protect but of itself produces further damage.

In both the first and the second stage, the patient is treated as if acidosis were expected. Saline infusion is given subcutaneously; sodium bicarbonate and glucose are given by the Murphy drip; and the patient's comfort is enhanced by the innumerable arts of a hospital force which is trained to consider the patient's welfare before all else, and to relegate to the background such rules, regulations and red tape as interfere with the patient's progress.

Sleep is induced by every possible means, for here again laboratory investigations have shown that the lesions caused by acidosis can be repaired only during sleep. It should be noted, however, that morphin is contraindicated in cases in which acidosis is present or threatened, since morphin while it prevents the further production of acids, also inhibits the neutralizing power of the body and delays or prevents the return of the body fluids to their normal alkalinity. Bromides per rectum are therefore substituted for morphin in these cases.

Aside from the protection afforded by the two-stage operation to patients in whom acidosis threatens, a striking advantage is found in cases of doubtful differentiation between cancer and ulcer.

Some years ago in a second operation upon a patient in whom a pyloric tumor had been diagnosed as cancer before and during the previous operation, six weeks before, I was astonished to find that the tumor had disappeared. Since then I have encountered three other similar cases, but in each of which, at the second operation, diagnosed as cancers before and during the first operation, one ten, one sixteen, and one twenty-one days later, the tumor had disappeared. Willy Meyer and Lilienthal have mentioned similar cases. Had I depended on appearances, and planned to

operate in one seance, I should have made resections for cancer in each instance, and the end-results would have been uncertain, as in each case the patients were emaciated and starved.

The technique of the first operation,—the gastro-jejunosomy—requires no special discussion. For the resection at the second operation the old suture line is opened and if the anociation of the first stage was complete the operative field will be well mobilized and protected against infection.

In other words the first stage and the interval of adjustment accomplishes for these cases what the delay of a week accomplishes for fractures of the patella; what iodoform gauze packing accomplishes in the first stage of a laryngectomy, what acute salpingitis does for later salpingectomy. In each instance the reserves against infection are called out into the local field, and an immunity against infection in the later operation is thus guaranteed.

The technique of the resection need not be described in detail as it depends upon the number of adhesions and the location and extent of the cancerous growth. One point may be noted, however, the stomach is divided with the thermo cautery between Payr clamps and the margins of the division are sterilized by the cautery. The object of this searing is not only to secure an aseptic division of the stomach but also to coagulate the blood vessels and prevent oozing. Nor is that all—one of the commonest dangers in cancer is that of cancer implantation on the cut ends of the tissues divided in the operation. The searing makes a dry charred surface which cannot sustain the growth of cancer tissue. To prevent leakage the divided ends are inverted and closed with the shoemaker stitch, and as a further protection a series of interrupted silk sutures reinforce the shoemaker stitch which is of chromic gut.

Summary

1. In cases in which resection of the stomach is indicated the reserve alkalinity is usually lessened, often reduced to a minimum.

2. In these cases, such measures should be employed as will obviate the further depletion of the body's stores of alkalies and bases, and the reserve alkalinity should be increased.

3. Because of its conserving action, and its pleasing subjective effect upon the patient nitrous oxid is the anesthetic of choice.

4. The acid producing effects of operative trauma should be reduced to a minimum by employing the technique of anociation.

5. In resection the operation should be performed in two

stages—first, gastrojejunostomy, second, resection after nutritional balance is restored.

6. Water and subcutaneous saline infusions, glucose and soda bicarbonate per rectum, increase the reserve alkalinity and consequently conserve the patient.

7. Bromides per rectum conserve the patient by diminishing the transformation of energy, thus diminishing acid production; and by inducing sleep, the only means by which the damage done to the energy transforming organs by excessive acid by-products can be repaired.

8. The division of the stomach by the cautery and the thorough searing of the cut edges with moderate heat sterilizes against pyogenic infections and against cancer growth and prevents bleeding—three of the most important considerations in gastric resection.

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Railways and National Defense. W. L. Park, V. P. Ill. Cent. R. R., Railway Surg. Jour., July, points out that the limited amount of double trackage in the U. S. would be a serious impediment. A 14 inch gun requires a 100-ton flat car, being 48 ft. long and 7 ft. wide and weighing 139,000 pounds. The new 16 inch gun is 67 ft. long, over 7 ft. wide and weighs 367,000 pounds. There are few flat cars of the proper size available in the U. S. The War Dept. estimates the requirements of an infantry regiment at 5 sleepers, 43 coaches, 5 baggage cars, 15 box cars, 9 stock cars, 8 flat cars, occupying 5,150 ft. of track. A cavalry regiment would require 8 sleepers, 28 coaches, 8 baggage cars, 25 box cars, 72 stock cars, 9 flat cars, occupying 7,850 ft. of track. An infantry division would require 1507 cars of various kinds, occupying about 15 miles of track; a cavalry division, 1,302 cars, 14 miles plus. A locomotive and tender must be allowed for about every 17 cars. He advocates a board of army experts co-operating with practical railroad men.

Test for Occult Blood in the Stool. Wagner (Arch. fur Verdauungskrankh., Vol. XX., No. 4). A little of the stool (if formed, from its central portion) is spread over a clean slide. Over this the reagent is poured, a bit of benzidin, dissolved in 2 c.c. glacial acetic acid, plus 20 drops of 3 per cent. hydrogen peroxide. A blue color shows the presence of blood. The test is as delicate and reliable as any benzidin test. Extraneous ferments, which constitute a possible source of error, may be excluded by heating the film.

Spurs in the Nose

By JOHN C. WARBRICK, M. D., Chicago.

Spurs in the nasal passages may be somewhat likened to the small outshoots growing on the limbs of an apple tree or to a peculiar fungous growth semi-circular in form often found attached to some object and again to the black knot growths commonly observed on unhealthy cherry trees.

Some of them may also be likened to the strong sharp spurs seen on the legs of most roosters, only a little smaller in size and of a different shape.

As is well known spurs are projections of a cartilaginous nature in many cases, while in other instances they seem to be formed of a combination of cartilage and bone, making a solid mass at times, almost as hard as stone and somewhat difficult to remove from its attachment.

Occasionally a small spur may be found of much softer consistence than cartilage, and also a larger one may be noted as well. These numerous outgrowths would seem to be very common in the nasal passages for some reason or other, while almost as a rule their origin is confined entirely to some part of the nasal septum, and they seldom if ever occur in any other part of the nostrils. Possibly they are more frequently noted along the base of the septum from the anterior part to the posterior extremity than any other place, while they may occur much oftener in the anterior half of the thin partition along the base than in the posterior half.

On the upper part of the nasal septum it would seem that spurs of any kind do not occur nearly so often as on the lower part. Just what the origin of these common protrusions is does not seem to be exactly known, although some theories may be put forth to explain them.

It may be they grow from some constant irritation, in a way not explained, or from congestion extending over a long period, a foci being formed at a certain place where accretion begins and extends by degrees.

The septum being formed mostly of cartilaginous material above with its base resting firmly on a bony structure, known as the union of the two surfaces or wings of the superior maxillary bones, it is hardly to be wondered at if such numerous outgrowths should be formed mostly of cartilaginous principles more so along the base where the two formations meet to form in some cases a combination spur consisting of cartilage and bone. All forms and sizes of these leeches may be found in the nasal passages, from the smaller speck about the size of a pinhead to the large and irregular one with shelving edge almost filling up the lower part of

the cavity reaching backwards as it does and extending across the passage to project into the other side and become fixed.

These shelving outgrowths or elongated structures may begin at the base of the septum near the front part of the nose and extend to the posterior limits.

They may in some instances overlap the inferior turbinated body entirely, and almost covering it up so it cannot be seen, while in other cases they may in part transfix it.

In some cases an elongated spur may project into the middle turbinated body and to some extent transfix it.

A peculiar spur, something like a ladder, may occasionally be seen on the septum towards the upper part.

It begins at the front of the nose near the septal base and gradually extends in an upward direction projecting a little from the side and seeming to form numerous steps one above the other from its having a somewhat corrugated appearance. There is not very much evidence to prove that spurs are found any more frequently in one side of the nasal cavity than the other, although it might be the case, however, there does not seem to be any special reason why this should be so unless from some peculiar circumstances that may arise now and again.

They are, as has been often observed, found repeatedly growing in both nasal passages, time and time again it may be said almost without number, while they may be either single or multiple in number.

They may occur from almost any age in childhood up to that of an advanced period in life, and they may be noted in men, women and children of all ages.

Whether sex has any influence in determining the formation and growth of spurs, is not just known, nor whether they are found any more frequent in men than in women.

Possibly they occur in the nasal passages of one sex nearly as often as in the other, if the real facts were tabulated for comparison.

They may be found among people of all nationalities, and of various occupations, while it may be that very few are entirely free from one or more of them in their nostrils at some time during the course of their existence.

All shapes may be assumed by these septal barnacles. They may be oval, oblong, round, inclined, straight, corrugated, irregular, spear shaped, etc.

The edges of some of them may be sharp and pointed or sharp and shelving or blunt and thick.

It is hardly natural to have such objects in the nostrils, whether small or large in size, where they would seem to act like a foreign body, and in many instances tend to block

them up and, at the same time obstruct the flow of mucous.

They are covered by mucous membrane all over and extend the extent of its surface in the nasal passages to some degree. While they seem to have a good supply of blood in most cases, for some of them when removed tend to bleed profusely, which may not be easy to check just at once.

Most spurs should be taken out of the nostrils, and more so if they are large in size and causing trouble, which, of course, they do. Some of them tend to bleed readily from a slight cause, such as dust getting in the passage or from increased tension of any kind in the blood vessels.

A small spur may cause little or no trouble of any kind in the nostril nor obstruct the breathing at all, but they tend to increase in size all the time, and by degrees reach a good proportion until some symptoms may be produced, then it is necessary to think of an operation.

A small spur is not difficult to remove, especially if it is situated in the front part of the nostril, and the only trouble that might be caused, is bleeding in some cases. A large spur may not be easy to remove, and more so if it is of a bony nature and of large surface and with a shelving edge. Some spurs of good size may be taken out of the nostrils without much bother, while others cause a great deal of difficulty, in some cases where patient cannot stand much pain or irritation, so that it has to be removed by degrees.

Human Rabies in California. J. C. Geiger, Calif. State Jour., June. The first case was reported in 1899. 33 others have occurred since 1909, all fatal. 9 had received Pasteur treatment but only 3 for what Pasteur considered the necessary length of time. The interval between the bite and death ranged from 16 days to 11 weeks. All cases were directly due to dog bites except one, due to a cat. For the year ending Mch. 31, 1914, (ibid. July) 428 brains of animals were received for examination in the State Laboratory, 9 being too much decomposed for examination. 70 of the remainder gave negative results, 339 showed Negri bodies and 9 more proved positive by inoculation experiments. The 348 demonstrated cases included 317 dogs, 14 cows, 11 cats, 4 horses, 1 goat and 1 coyote. These had bitten 235 human beings and 207 animals. 641 persons have received Pasteur treatment, only 3 being failures.

Fecundity. A French-Canadian gave birth to triplets after 8 months, April 14, 1914; to triplets after 6½ months, Dec. 31, 1914; to twins, full term, June 14, 1916. E. F. Fluhmann, Kenogami, Que., Med. World, Aug.

Scientific Researches Into the Causes of Alcoholism and Inebriety.

T. D. CROTHERS, M. D., Hartford, Conn.

One great fact has been established by accurate laboratory and clinical research, viz., that the physiological action of alcohol on the cell and tissue is that of an anesthetic and depressant, and not a tonic or stimulant. This has been accepted by the profession generally, and while it revolutionizes the previous theories, explains in some degree why alcohol is so fascinating.

Beyond this, there is a vast range of causes producing alcoholism and inebriety that are practically unknown. All remedial and restorative efforts are based on the theory that alcohol is the special and particular cause of all the degenerations which follow from its use.

Careful studies of individual cases show this to be untrue; also that in many instances alcohol is only a symptom. It may be a complicating drug intensifying unknown conditions that were latent before. It may be a specific poison localizing in certain organs. It is also cumulative, and associated with the most complex neuroses.

The causes that impel men to drink have never been studied scientifically. The literature up to the present is a confusing mass of theories and opinions unverified.

In this unknown region there are innumerable questions like the following: Why are certain periods of life more favorable for the outbreak of the craze for alcohol than others? Why does the desire to drink break out suddenly in diverse conditions, and then subside from causes inadequate to explain the change? What is the explanation of the exact periodicity of these drink excesses that are as certain as the rise and fall of the tide? What are the causes in surroundings and conditions of living that provoke these paroxysms? Why do men drink after injuries, diseases, shocks, losses, disappointments, business reverses and great successes in life? What degenerations are transmitted from the parents to the children that create susceptibility or immunity to the effects of alcohol? Why are some persons able to drink in so-called moderation for years, and why do others quickly become diseased and die? Why do some men drink in early life, then abstain, and in middle or later life turn to alcohol again and drink until death? Why are some persons susceptible to the contagion of surroundings and companions, while others are immune? What physical and psychical causes produce the drink craze?

These are some of the unknown causes and conditions which have never been studied with scientific exactness. One of the most prominent and widely accepted explanations is the so-called moral cause. Physical conditions are considered results and not causes.

A Research Foundation has recently been organized at Hartford, Conn., for the purpose of making an exact scientific study of these questions. It will be endowed and become a permanent work. Preliminary studies have already begun, and practicing physicians from all parts of the country are appealed to for the records and histories of cases which will be compiled and tabulated for the purpose of determining the laws which control and govern them.

This is the first scientific effort to take up the subjects of alcoholism and inebriety and determine the causes which produce them outside of alcohol. Science has shown that these conditions are governed by exact physical and psychical laws, which if known and understood would indicate the most practical means and measures of relief.

The Foundation will be practically a laboratory or clearinghouse where persons can come for examination, counsel and advice. To a large class of persons who want something more than pledges, appeals or sanatorium treatment, this will open a new field of means and measures for relief that will be most welcome.

Correspondence is earnestly solicited from the profession.

Superfoetation. A 12-para negress in 1900 stated that she had menstruated twice after she was sure she was pregnant. A seven-month male foetus weighing 5 pounds and a nine-month foetus apparently fully matured were delivered at one labor. Both were "raised" and are alive at present, with about 20 pounds difference in weight. Onslow Regan, Alexander City, Ala., Med. World, Aug.

Chlorophyl. Burgi, *Correspondenzblatt für Schweizer Aertzte*, Apr. 16, ascribes a direct haematopoietic function to chlorophyl, rather than assuming that the generally conceded value of spinach, etc., in anaemia is due to a large amount of iron. Maillart, *ibid.* June 3, corroborates this view from the historic standpoint, although limiting his discussion to rather narrow geographic regions. (*Edit., Med. Rec., July 29*).

Gas Bacillus Infection. Franz states that this occurred in 2% of soldiers wounded in Belgium, on account of the highly fertilized soil, the mortality being 53.4%.

The Phylacogen Treatment of Rheumatism*

H. C. LAPP, M. D., North Tonawanda, N. Y.

In selecting this subject for our consideration this afternoon it is more for the purpose of bringing out a discussion concerning the merits or demerits of this new treatment than in attempting to offer anything new about the disease itself. For many years both among the laity and the profession it was a well accepted theory that rheumatism was caused by an excess of uric acid in the blood. While this condition might exist, it is not the cause but a result of the disease. In this day of scientific investigation it has come to be the accepted theory that rheumatism is caused by a specific organism. We may therefore define rheumatism as an infectious disease. There always has been a tendency among the profession to diagnose as rheumatism almost any pain in the joints or muscles, whether it be a neuritis, a gonorrheal arthritis, tubercular arthritis or a simple neuralgia. We are altogether too prone to tell our patients that they have a rheumatism when they come to us with a pain that is somewhat obscure and we are not sure as to the cause. In Forcheimer's Therapeusis rheumatism is defined as an acute febrile disease caused by the infection by specific organisms and characterized by an exudative, non-suppurative inflammation of the joints with a peculiar tendency to secondary involvement of the pericardium, endocardium and the heart muscle.

Bacteriologists have attempted to isolate and identify the specific micro-organism of rheumatism. Poynton and Payne claim to have isolated the germ and named it streptococcus rheumaticus. These claims have been confirmed by many other research workers, although they have not been accepted by some. Certain ones claim to have been able to produce arthritis and mitral disease in rabbits by the injection of the micro-organisms. It is believed that the tonsils and pharynx are very often the inroads of this infection. Langmead, from an investigation of one hundred and thirty-three cases, found that forty-three per cent. showed evidence of infection of the tonsils or pharyngeal necrosis.

It is on the theory that this disease is one of infection that the Phylacogen treatment is advocated. This treatment was originated in 1910 by Dr. A. F. Schafer, of Bakersfield, Cal. The principle upon which the use of Phylacogen is founded is the theory of multiple infection and that the growth of infection micro-organisms can be arrested and their effects

*Read before Gross Medical Club, February 18, 1916.

neutralized by products derived from their growth in artificial culture media. Rheumatism Phylacogen is composed of one-half Mixed Infection Phylacogen, which is prepared from a large number of species of the well known pathogenic bacteria, such as the several staphylococci, streptococci pyocyaneus, diplococcus pneumoniae, bacillus pyogenus, bacillus typhosis, bacillus coli communis, etc. These various organisms are present in the material before filtration in approximately the same proportions. These cultures are incubated at thirty-seven degrees centigrade for seventy-two hours and the bacteria killed, after which a preservative consisting of five-tenths of one per cent. of phenol is added to the fluid, which is then filtered through porcelain. To this Mixed Infection Phylacogen is added an equal amount of the filtrate of the streptococcus rheumaticus and the resulting preparation is called Rheumatism Phylacogen.

Phylacogen is administered in two ways, either subcutaneously by hypodermic injection or intravenously by direct injection into a vein. I have never tried the intravenous method. My experience in the treatment of these cases has been seven, of which the most interesting to me was a personal one. I wish to report these cases with the method of treatment and the result. In each case the Phylacogen was given after seemingly everything else had failed.

If you will pardon reference to my own case, wish to state that I was taken sick in the early part of April, 1913, and called in some of my medical colleagues and was treated by them for seven weeks following the usual methods. I was given all the Rheumatics known and seemed to receive no relief. We finally decided to try the Phylacogen treatment. On the first day I was given two c.c. of the Phylacogen subcutaneously and repeating the injection on each succeeding day, increasing one c.c. each day until I was taking ten c.c. at each dose. This was continued until I had received fifty c.c. There was no noticeable reaction until the dose was increased to 5 c.c. or more. On the fourth day after beginning the treatment I began to have less pain, and swelling and redness began to disappear. In a week I was up and continued to improve until I was entirely well and have continued so ever since, a period of about two and one-half years.

I would like here to describe the reaction which takes place following a large dose of Phylacogen. In about three or four hours after the injection there is quite a distinct chill lasting about fifteen minutes, which is followed by a sharp rise of temperature lasting for several hours. This is followed by some depression and loss of appetite. Favorable results may be obtained by giving small doses repeated daily and

gradually increasing according to the tolerance of the individual. We do not get the depression and severe reactions following this plan of treatment. In all the cases except my own the small series of doses was used.

Case 1.—The first case that I treated was a woman, age 24, married, gave a history of having suffered from rheumatism for five years. Had been treated by several different physicians with no benefit. I started the treatment on June 11, 1914, at which time she was suffering with pain in the ankles and feet with swelling and redness of the joints. I started by giving two c.c. of Rheumatism Phylacogen subcutaneously, giving her an injection each day, increasing the dose until I gave her five c.c. at one dose. I did not go above five c.c. in this case. In all she had fifty c.c. of the Phylacogen. On the fifth day there was an improvement both in the pain and in the swelling, and patient was able in a week to walk and move the joints without pain. There has been no return in this case after a year and a half.

Case 2.—Man, age forty-five, gave a history of repeated attacks of inflammatory rheumatism for the past fifteen years, had a very bad valvular disease of the heart. Had not been able to do any work for ten years. History of slight stroke of paralysis five years before. Was taken with an acute attack of inflammatory rheumatism and after a few days of other treatment without benefit it was decided to try the Phylacogen. I gave two c.c. subcutaneously each day for several days and the heart seemed to be more steady. The pain and swelling was not so acute and patient was apparently making a good recovery from his acute attack when about one week after I had finished with the Phylacogen treatment the man suffered another stroke of paralysis which involved his whole right side. This was followed by an ascites and at the end of a week the man died. The Phylacogen had nothing to do with the cause of the cerebral hemorrhage as the treatment had been discontinued for a week.

Case 3.—Woman about 38 years of age had been suffering from chronic articular rheumatism with beginning arthritis deformans. Patient had been treated for several months by another physician and was turned over to me for treatment with the Phylacogen. I began treatment in this case on September 30th, 1914, and continued for ten days, giving her repeated small doses of Phylacogen. When I began the treatment patient was in bed and had a great deal of pain and deformity of the hands and fingers. At the end of ten days she was able to be up about the house, at which time I was discharged. This case was not cured and she stopped the treatment just when it was needed most. At present the patient is taking osteopathic treatments for rheumatism. I

believe that this case would have been greatly benefited if she had continued the Phylacogen treatments.

Case 4.—Woman, age 47, has been suffering from rheumatism for over two years, has been treated by several physicians with no relief, and her condition appearing to grow worse each day. For four months she was treated by an osteopath. I was called to see the case November 21, 1915. Her condition was pitiable, she was unable to walk or feed herself, all joints of the legs and feet and also right wrist and elbow badly swollen and inflamed. Was unable to sleep without opiates. I started this case by giving one c.c. of Phylacogen subcutaneously and increasing to two c.c. on the third day. I continued the treatment for about five weeks, giving an injection every day for about three weeks and every other day thereafter. For three or four weeks there was a distinct improvement both in the patient's general condition and in the rheumatism. Her appetite improved and after about ten days she was able to be up in her chair during the entire day. The cramps in her limbs left and she was able to sleep well. Beyond this point there did not seem to be an improvement as the function of the joints was not restored owing to considerable permanent damage to the parts involved. The woman at the present time is able to be up all day, eats and sleeps well, has very little pain, but is unable to walk and has very little use of her hands. I am unable to say whether more Phylacogen would have improved this condition as the patient became discouraged and decided to discontinue the treatment.

I am at the present time treating two cases of acute inflammatory rheumatism with Phylacogen. In both cases I treated patients for two weeks with salicylates and other medicinal treatment. But there was a steady increase of pain and involvement of joints of each case. In one of these I had an involvement of the heart with great weakness. I stopped all medicines except heart stimulants and started giving one c.c. of Phylacogen each day, increasing on the third day to 2 c.c. I have been giving the Phylacogen for a week now, the patient is sitting up about two hours each day, eating well, and is apparently making a splendid recovery. The other case is out of bed and dressed every day now, free from pain and is eating well. I did not give three c.c. in either one of these cases. In neither of them has the patient over thirty c.c. of the Phylacogen.

While I do not believe that we will get results in all cases, and while those I have treated have been few in number, the results of those treated have been such that I believe that in a majority of cases of true rheumatism we have in Phylaco-

gen a remedy that if properly administered will serve us well.

270 Payne Avenue.

Diabetes. (Condensed from review by H. C. King, Cleveland Med. Jour., April), F. M. Allen, Am. Jour. Med. Sci., Oct., 1915, emphasizes the dangers of fat in producing coma and holds that acid bodies cannot be formed from carbohydrates. (Note: Of course, this does not apply to action by bacteria as in gastroenteric or even buccal fermentation nor is strictly true even for catabolic changes for carbon dioxid is essentially an acid and there is some evidence that acidosis in the clinical sense depends largely on the ultimate balance of reaction in the system, in which carbon dioxid is the largest factor). Glycosuria in itself is not so important as acidosis.

Edgar Stillman, *ibid.* April, 1916, holds that urinary tests for acidosis are often misleading because they measure only the excretion and not the retention. He approves Van Slyke's simplified test (not yet published) for determining the bound carbon dioxid in blood plasma. (Note: However, the direct acidity of the urine, if excessive and maintained for several days is a pretty good index of the general balance of the system).

Elliott P. Joslyn, Am. Jour. Med. Sci., Meh. 1916, holds that large doses of sodium bicarbonate are frequently dangerous in threatened coma. (Note: This is a point which may be questioned. If true it is exceedingly important). He thinks that fasting should be preceded by absolute exclusion of fat from the diet, then the omission of proteid, then successively cut the carbohydrate in halves till 10 grams are reached. (Note: A fasting patient is really on a diet of proteid and fat, probably mainly fat, after the small store of glycogen is exhausted). He tabulates the essential cause of death in 420 diabetics: 147 died without and 273 with coma. Of the 147, cancer caused the death of 17, cardio-vascular-renal disease of 62, including 14 cases of cerebral haemorrhage. 16 died of pulmonary tuberculosis. Infections caused death in 36. Pneumonia caused 15 deaths, amygdalitis 11, gangrene 9. "Numerically infections take front rank by precipitating coma for over 78% of the deaths." (Note: As we understand the somewhat contradictory explanation, the 143 cases stated to have died without coma, included many that died in coma due to an infection. This brings up the question whether "coma" can be exactly defined).

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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Pensions for Physicians.

Too few replies have been received on this subject to present them at present and we earnestly ask for expressions of opinion. It has been intimated, however, that a modest beginning of a fund is in sight. Meantime, a phase of the matter has been presented which was not contemplated but which is of considerable importance. In medicine as in other sciences, certain men make discoveries or perfect inventions of great value to the race but either not susceptible of being distributed so as to afford a living for the discoverer or requiring mental attributes and methods not compatible with earning a living. To such men, the world owes a debt not merely of gratitude but of practical maintenance somewhat conforming to the value of the service to humanity. Yet, in many instances, the discovery or invention is exploited so that its originator gets nothing or very little from his labors while not even the public benefits from it except remotely. This phase of recognition of services involves something more than the relief, in old age or incapacity of the routine worker and it requires, for the adequate discharge of the obligation, different means from those contemplated. It can not be satisfactorily carried out by a few world prizes, nor by the present patent laws, even disregarding the objection to patents of medical devices, nor by private annuities. Without having been able to give the problem the consideration which it deserves, it occurs to us that the nation should legalize the principle of rewarding great discoveries in any line, in cases in which the discovery is so broad and so intangible that a

patent is out of the question; or, in lieu of a patent, should buy the invention whenever the government can control or employ it directly and conveniently or should pay an honorarium in other instances, if it be thrown open to general manufacture and open competition. Any such legislation would require some sort of board of investigation and appraisal, of permanent nature.

Food Dosage.

“For the ordinary adult, the amount of nitrogen required to replace daily waste, is contained in a piece of meat the size of an ordinary chop.” This text is taken at random from an exchange, the original source we do not know. Some time ago, we took what we considered an ordinary lamb chop, carefully cut out the lean meat and weighed it—25 grams. Lean meat contains about 20% of proteid—5 grams for that chop. The older authorities state that the average adult requires about 100 grams of proteid a day; Chittenden, who has made exhaustive experiments to determine how low a proteid ration is possible, considers 50 grams the practical minimum.

250 grams, then, represents the amount of meat necessary to furnish the proteid ration, according to Chittenden; 500 grams according to the older authorities, supposing of course that no other source of proteid is eaten. A pound contains about 453 grams. A chop containing more than a pound or even more than half a pound of lean meat is not exactly ordinary, although in England, full grown mutton is used more than in America and the gross weight of a chop may be half a pound.

Dietetics is an extremely important branch of therapeutics, it deals with ponderable remedies. By actual scientific and, at the same time, practical experiment, we know how much of the organic nutritive principles is required to furnish energy and repair waste and as definitely as for crude drugs, the percentage of organic principles in crude foods.

Suppose that we knew that opium, any of its Galenicals or morphine, produced certain physiologic effects but did not know either the dose of morphine, or the assayed strength of opium or its Galenicals in terms of the active principle, or the empiric dose of any of the officinal preparations. Suppose that we told a pain-afflicted patient to get some tincture of opium and to take some, not too much, but a reasonable quantity, or as much as he could swallow. Except that an overdose of proteid, fat or carbohydrate does not produce as conspicuous symptoms as an overdose of morphine and that

most persons have a natural appetite that guides them somewhat in their choice of food, very similar therapeutic failures, in either direction will follow if we do not know approximately the percentage of nutriments in ordinary food stuffs, how much is needed, and do not follow at least an approximate dosage in ordering foods.

Many physicians can pour liquids and powders out of the vials of their medicine cases, and judge the dose quite accurately by the eye. How many can guess, even approximately, how much bread, butter, meat, etc., they or their patients eat?

Do you, for instance, realize, that a quart of milk a day represents less than a third of an average ration? Do you know that it would take 29 eggs to equal the day's ration? Did you realize that the quotation at the beginning of this column was incorrect, as quickly, for instance as if a patient had given you a one dollar bill for a ten? Do you think that a 5c package of crackers weighs a pound? If so, study food dosage. It is hard work but just as necessary as studying dosage and composition of Galenical drugs. Don't understand us to say that a person should drink three quarts of milk and more a day, or eat 29 eggs. If a man stated that his wages were 300 cents a day, it would not mean that he could conveniently receive his pay in 300 coppers.

Only a short time ago, we read of a boy, treated unsuccessfully for months, by his family physician for an obscure ailment, turned over to a specialist in vain, finally sent to live with a relative who was a physician and a man of common sense. And the whole trouble was that the child admired his father so much that he imitated his habits of eating and was suffering from an overdose of proteid, fat and carbohydrate. Some time ago, we made a faecal examination in a similar case—not realizing its nature—and found, no particular abnormality, not even indigestion in the strict sense but simply too much of everything; total faecal mass, muscle oblongs, fats, vegetable residue.

Food dosage is no recondite matter. Typhoid fever has an average mortality of nearly 10%. Is it the infection that kills or, possibly, five weeks of burning up of ingesta and tissue, on a diet of a quart of milk a day, less than $\frac{1}{3}$ the standard ration; perhaps with part of the milk replaced with meat juice and extracts at about $\frac{1}{3}$ the caloric value of milk, not to mention the lack of balance between the nutrients of the ingesta and the demands of the system for a proper proportionate distribution of proteid, fat and carbohydrate?

Years ago, we saw a case in which a most skillful gastrostomy had been done to save a patient from starving

and, then he was fed (?) on about 200 c.c. of meat extract, containing about 5% of proteid and practically nothing else—10 grams of proteid, about 40 calories net, approximately 1/60 of the total daily requirement. And, very logically, the patient died. Tincture or roast, opium or beef, morphine or proteid, it is a matter of percentage and dosage. In the former the danger is more often from overdose, in the latter from underdose but, for both drug and food, we must strike the happy mean of safe efficiency.

The Unsafe Inference.

We once proudly observed to a physician who was driving us to a case in a small city: "You must have a considerable country practice"—our pride being in the Sherlockian observation that the thills of his cutter centered on the left edge of the sleigh. The inference was quite wrong. A considerable mass of inferential methods could be gathered together for medicine, all supported by good authority and resting on the most approved principles of inductive reasoning. Detective work is all very well in its way, even as applied to medical practice but, except in stories, inductive reasoning leads us on a great many false clues and the right one is finally found, not so much by continuing to draw inferences, as by accident or by discovery of a definite fact.

Leucocytosis normally rises to correspond to digestive and absorptive activity but it is much more certain and much simpler to investigate digestion itself. It is logical to assume a secondary acid fermentation in urine, to account for certain delayed crystalline deposits, as of uric acid and oxalates but, in a considerable series of tests, we have never been able to make out any rise in acidity on standing, beyond the limit of error of indicators. The theory of an alkaline and an acid tide of urine, converse to acid and alkaline stages of digestion has been taught for half a century but actual titration shows nothing of the sort—which is very natural when we pause to recollect that before the acid stage of digestion is well under way, somewhere near half of the gastric contents have already entered the intestine and started on the alkaline stage. The "highly acid urine of rheumatism" is an expression so trite as to be accepted almost as a matter of course, but actual titration often reveals exceedingly high degrees of acidity in non-rheumatic states and very moderate degrees in acute rheumatism.

There is a prevalent impression that peptic ulcer is due to the burning of a hole in the stomach by an excess of acid,

although it is only fair to say that the men who have perhaps given rise to this impression would be the first to ridicule it in this crude form of expression. But on the one hand, a large series of cases of hyperchlorhydria, followed for years, only occasionally yields one of ulcer while, on the other hand, the actual number of tests of stomach contents made at the height of an ulcer is obviously small when we consider the hesitancy to intubate at so critical a period and the statistics of such investigations as have been made, by no means show a regular occurrence of acid excess. Many quasi-scientific and authoritative articles on hyperchlorhydria, achylia gastrica, etc., when closely criticised, are found to infer excess of HCl from total acidity or lack of digestive power from very unreliable and imperfect tests.

There used to be a considerable chapter in works on practice on the "sympathetic" relation of the tongue and the stomach. In fact, from inspection of the tongue, all sorts of recondite diagnoses were made. With growing experience, most of this orthodox preface to the practice of medicine, has gradually been dropped from lectures and text books. All sorts of erudition concerning points of pain, dermal states, and various other superficial symptoms have been accumulated—and discarded by the medical men from Missouri.

Laws regarding the heredity of syphilis have been wiped off our statute books since the discovery of the spirochete. The symptomatic classification of malaria has been similarly modified by the direct study of the forms of parasites.

Surgeons used to have a plausible dictum that contraction of the cardia or lower oesophagus, went with a small stomach, contraction of the pylorus with a large organ—perfectly logical and often true, but by no means invariably so.

On different occasions, we have heard equally logical demonstrations of the exclusive association of indicanuria with hyperchlorhydria, and also with hypochlorhydria. And the illogical argument of the burette and test tube is that either condition of the stomach may or may not be associated with indicanuria.

But why multiply examples? Every practitioner must occasionally have found urines of specific gravity too low for sugar, according to the best authority, but nevertheless saccharine.

Any one of these illustrations points the moral for all: Don't infer one condition from something else that ought, logically, to produce a chain of events leading to it. Examine directly for the thing that you want to find out.

Anterior Poliomyelitis

We know no more about the therapeutics, prophylaxis and etiology of this disease than we did thirty years ago, except in the sense that what little we do know is more generally diffused among the profession and the laity and that certain items are better supported by scientific study, as for instance, that the nasal secretion, washings from the rectum, blood and tissues are infectious to monkeys and rabbits, by way of mucous membrane, even the abraded skin, subcutaneous injection and even by stomach in massive doses. It is possible, too, that claims of discovery of a specific bacterium, of a serum or vaccine, of certain therapeutic measures not directly connected with the potential bacterial cause, etc., may be confirmed. (See Flexner's article *Archives of Pediatrics*, August).

So far as statistics can be relied upon and properly compared, and with due allowance for fluctuations in incidence from year to year, it may be doubted whether poliomyelitis is more prevalent than formerly. We are, officially and privately, waking up to our duty to discover what the disease really is and to check it in some way.

In many respects, poliomyelitis is a puzzle. Not only are we ignorant of its true nature but it does not correspond to the general principles learned from knowledge of or empiric experience with other diseases. It has the characteristics of an infection but, except experimentally, it violates most of the rules that may be applied to infections. It is almost absolutely limited to young children, approximately to those under 5. Most "children's diseases" are merely human beings' diseases. Children succumb because they are not immunized. If they happen to escape, there remains a liability to infection, at any time of life, subject to greater general resistance, lack of exposure, or what may be reasonably explained as immunity by heredity or by an abortive attack. Small pox, for example, is just as much a children's disease as scarlet fever except that by the introduction of artificial methods of prophylaxis, children of ambulant age are better protected than adults. A few local epidemics of poliomyelitis have attacked over 1% of the total population but the average alarming epidemic does not attack even 1 per mille. Remembering that children under 6 comprise about 11% of the total population, these statistics mean that an epidemic occurring in virgin soil attacks only about 10% of the particularly susceptible material and that the mere element of advancing age rapidly produces an effective resistance, which is almost absolute for adults, even if not previously immunized by an attack. For an ordinary epidemic, even of

serious degree, 1% or less of young children are attacked.

Direct contagion—remembering that this word means an infection so communicable that not even actual contact is required for its transmission—is seldom noted even on the post hoc propter hoc argument. The disease does not correspond in period of maximum incidence to the school year and, indeed, occurs mainly in children too young for school. It is no more common in poor, crowded and unsanitary districts than under the opposite conditions; indeed, epidemics of maximum proportionate incidence, occur mainly in villages and the open country. Transmission does not necessarily follow routes of travel nor does an introduced case obviously act as a focus for others.

Fomites furnish infectious material under experimental control, but do not usually serve as centers for spontaneous infection, while epidemics abate in spite of a large number of suppositiously infected centers and, as stated, long before the exhaustion of suppositiously susceptible individuals.

Insects have been incriminated on general principles and experimental infection has been transferred by them but the period of epidemics exceeds that in which either house and body insects on the one hand or out-door insects on the other, are liable to particular suspicion. The erratic distribution of the disease in any given epidemic, seems incompatible with a specific, obligate or essential insect carrier. However, it is possible that these apparent inconsistencies with the entomophoric theory may indicate special, temporary distributions of some particular species or even variety of insect.

Human epidemics are stated not to coincide with epizootics that might indicate a correspondence with a lower animal host, possibly afflicted in a different clinical manner.

No connection has been noted, with water, ice, milk, or other food supplies. It has been suggested that the disease might be a deprivation or special food intoxication, independently of or in connection with an infection, but, on the one hand, its greatest incidence occurs when food is, on the whole most abundant and does not correspond to differences in nutrition, either by classes or individuals, while, on the other hand, the wide regional and class distribution of the disease, and the duration of the period of incidence over food seasons, seems to rule out a specific food intoxication. The age of susceptibility, though practically confined within small limits, is wide in regard to the characteristic diets involved.

It has, of course, been suggested, that the microorganism of poliomyelitis is not strictly specific but that the disease is a clinical variant of some other specific infection, intracellularis, pneumococcic, etc. But, on the one hand, no evi-

dence has been adduced that susceptibility to poliomyelitis is negated by an acquired immunity to any other specific disease and, on the other hand, it would seem that repeated search for the specific microorganism would certainly have yielded one already familiar if it were the cause. Moreover, how can we explain a general conformity to a given clinical type, occurring in epidemics and to an entirely different type at other times?

Our New Associate Editor. In accordance with the policy of the **Buffalo Medical Journal**, to afford adequate representation of the professional interests of all western New York, Syracuse has been added to our list of centers of editorial supervision. We are most fortunate in securing the services of Dr. J. J. Buettner, a native of Syracuse, and educated in the schools and University of that city. After receiving the degree of M. D. from the Medical Dept. of Syracuse University in 1896, Dr. Buettner studied in Berlin, Vienna and London, and returned to Syracuse to engage in medical practice. He is a member of the Syracuse Academy of Medicine, the A. M. A. and its state and county affiliating societies; the New York, American and Interstate Societies of Anaesthetists; and has been for some years Secretary of the Central New York Medical Association. His practice has been, for some years, limited to anaesthesia and he is anaesthetist to the Syracuse Hospital for Women and Children, St. Joseph's Hospital and the Syracuse Free Dispensary.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Parke, Davis & Co.'s Chinese Catalogue.

This was prepared in the U. S. sent to China and translated into Chinese, retranslated into English and revised. It is copiously illustrated, with cuts of original packages, scenes from the Detroit laboratories and some local views of Tashmoo. A deer's head has been adopted as the Chinese trade-mark. Excepting the headings and the firm's name and address, we are unable to vouch for the reading matter but it is certainly decorative. The catalogue is a linguistic

curiosity but even more noteworthy is the economic unity of the world which has rendered such a translation necessary.

Examination of the Urine and Other Clinical Side-Room Methods. Andrew Fergus Hewat, M. B., Ch. B., M. R. C. P., Edinburgh. 5th edition. Printed in England. Issued by Paul B. Hoeber, 67 and 69 E. 59, N. Y. 212 pages, vest-pocket size, \$1.

This is a very convenient little manual, surprisingly complete for urine, blood, sputum, pus, gastric contents and faeces.

Modern Medicine and Some Modern Remedies, Thomas Bodley Scott, Bournemouth, Eng., with preface by Sir Lauder Brunton. Paul B. Hoeber, 67 and 69 E. 59, N. Y. 159 pages, \$1.50.

This consists of essays on Disorders of the Heart, Arteriosclerosis, Therapeutic Speculations and Doubts and Chronic Bronchitis and Bronchial Asthma. Under therapeutic speculations, mention is made of hormones, endocrine organs, glandular extracts, etc. The work contains many practical suggestions and even the speculative portion is of value as calling attention to the development of therapeutics away from the old line of inorganic drugs. We trust that it will arouse sufficient interest to lead to the issue of a much enlarged edition, which would probably require a corps of writers, to cover the various phases of modern therapeutics completely.

United States Life Tables: 1910 Bureau of the Census; Supervision of Prof. James W. Gliver, University of Michigan.

These are based on statistics of the registration states and show the average number surviving at any age, of an initial population of the same age; the average deaths each year, expectation of life, etc. These statistics apply to the general population and groups, by sex, race, etc. Earlier life tables have been based either on rather remote statistics, or have been modified by the factor of financial safety and profit on the one hand, or the better showing of selected risks on the other hand, when actuaries' tables have been used to solve problems in vital statistics. This work, therefore, is of the utmost value as furnishing a dependable and very nearly accurate basis for study of various problems in longevity, etc.

Ultra-Violet Light, by means of the Alpine Sun Lamp, Treatment and Indications. Hugo Bach, M. D., Bad Elster, Saxony. Authorized translation. Paul B. Hoeber, N. Y. 114 pages, \$1.00.

The quartz lamp is fully described, the advantages over sun-light being solely in its availability at all times and the concentration of the ultra-violet rays which are largely absorbed by the atmosphere, especially the lower strata under which most of the inhabitants of the world reside. As a by-product, ozone is generated. While a large number of diseases are more or less amenable to photo-therapy, the author is conservative in his claims and emphasizes the necessity of individualizing rather than generalizing.

Diagnosis and Treatment of Heart Disease. Practical points for students and practitioners. E. M. Brockbank, M. D., F. R. C. P., Manchester, Eng. Paul B. Hoeber, 67-69 E. 59, N. Y. 120 pages, illustrated, \$1.25.

This book is exactly what it purports to be. The modern elaborate instrumental methods of studying the heart and alluded to only for illustrative purposes while the clinical methods of investigation that must remain the basis of practice are thoroughly treated. Treatment is briefly but comprehensively discussed under the headings of special forms of heart disease and diet, posture, change of occupation, diuretics and other remotely acting drugs are included.

Annual Report of the Dept. of Health, Buffalo. Year ending Dec. 31, 1915.

Dr. Fronczak and his staff are to be congratulated on the excellent way in which the manifold services of this department are conducted. This department costs the city about \$200,000 a year or about 40 cents per capita. Almost exactly $\frac{3}{4}$ of the expense is for salaries. This means, allowing for reasonable salaries and an efficient corps with no padding of the pay-roll, a high degree of economy. In the past 33 years—the average generation—the mortality per thousand has declined from 24.06 to 14.83, quite steadily although an apparent minimum of 12.25 was reached in 1898 on an estimated population undoubtedly excessive. Tuberculosis remains the cause of about $\frac{1}{10}$ of all deaths; typhoid causes about $\frac{1}{6}$ of the deaths that would have been expected from the growth of the city under the same sanitary conditions as a generation ago. Diphtheria seems to have been reduced to about a quarter of its former mortality but the marked

fluctuations in other common infections prevents any conclusion based on an average of several years, save that the epidemics recurring every few years seem to have been considerably reduced. Almost a third of all deaths occur in institutions—which suggests that we are developing a dependent class of considerable magnitude, also that the death rate is being swelled by desperate cases from without. In this connection 923 of the dead were buried out of town while 429 bodies were brought to Buffalo for burial. The bacteriologic reports show a large development of useful diagnostic procedures. Analyses of tap water varied from 1,440 to 5 per c.c. As an approximate general average, the Dept. of Health consumes about 2% of the total tax and, as stated, it costs about 40 cents per capita per annum. Every physician and every taxpayer should study this report thoroughly and see if he is getting his money's worth. We are, though it happens that we are paying a tax entirely disproportionate to our income.

Text Book of Practical Gynecology. D. Tod Gilliam, M. D., and Earl M. Gilliam, M. D., Columbus. F. A. Davis Co., Philadelphia. 5th edition, 681 pages, 352 engravings, colored frontispiece and 13 full page plates. \$5.00.

This work, already favorably known in its earlier editions, views the subject broadly. General considerations, as of examinations, technic, etc., precede the discussion of diseases in detail. Nearly a quarter of the work is devoted to abdominal and pelvic lesions not strictly gynecologic, to those of the bladder, urethra and ureters, kidneys and rectum. These conditions are practically included in the work of the gynecologist. An index of regional symptoms is presented. The work is well balanced between so-called medical and operative treatment; that is to say, the author does not neglect non-operative procedures, yet advises and describes them for the majority of lesions, in accordance with the best opinion of the times.

Practical Massage and Corrective Exercises. Hartvig Nissen, Boston. F. A. Davis Co., Philadelphia. 211 pages, 68 original illustrations, \$1.50.

This book is a revised and enlarged edition of the author's "Practical Massage in Twenty Lessons." It discusses the general principles of mechano-therapy and gives detailed exercises and methods of massage for various conditions to which such treatment is appropriate.

Venesection. Walton Forest Dutton, M. D., Tulsa, Ok. F. A. Davis Co., Philadelphia. 220 pages, illustrated. \$2.50.

This includes a paper on the history of blood letting, by Dr. Fielding H. Garrison, and describes the general principles and technic both of venesection and of the blood and blood pressure and analogous methods of diagnosis upon which the indications for blood letting rest. It then discusses in detail the surprisingly numerous conditions in which blood letting is, even at present, to be considered as a potential means of relief.

Cerebellar Abscess. Etiology, Pathology, Diagnosis and Treatment, including Anatomy and Physiology of the Cerebellum. Isidore Friesner, M. D. and Alfred Braun, M. D., N. Y. Paul B. Hoeber, N. Y. 186 pages, 10 full-page plates and 16 text illustrations. \$2.50.

This is one of a considerable series of medical monographs published by Mr. Hoeber, who has made a most careful selection of authors and subjects, with the idea of placing before the profession thoroughly modern critical studies of various subjects on which it is difficult to secure accurate information. At first thought, it might seem that this work would appeal only to neurologists and brain surgeons. But, we recall a visit to a foreign hospital with a distinguished clinician who told of a case that had baffled himself and everyone else, even as to its proper classification, and which was finally cleared up by the chance visit of a man who, apparently without any scientific study of the case, made the diagnosis of cerebellar abscess, although the first impression of those who had observed the case for some time was that this was merely a random guess. We likewise recall a patient in our interne experience, twice treated (?) in a hospital, without any diagnosis at all and purely expectantly, who died suddenly and whose brain showed several tumors, including one of the cerebellum. Cerebellar lesions are undoubtedly rare but they cannot be neglected on that account. The symptomatology is vague. The detection of such cases and the preservation of life depends on a well diffused knowledge of their nature and manifestations. To a larger degree than the majority of rare and puzzling cases, they are liable not to suggest their gravity, not even to suggest the proper special consideration which may unravel their nature. So far as is humanly possible at present, this book places before the profession the means of proper diagnosis and treatment.

A Text-Book of Pathology. By William G. MacCallum, M. D., Professor of Pathology in the College of Physicians and Surgeons, Columbia University, New York City. Octavo volume of 1085 pages with 575 original illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$7.50 net.

In authorship, as well as in illustration and other phases of the publisher's art, this work comes immediately into the class of comprehensive special text-books of high order. The literary style is brightened by the occasional use of comparisons with non-technical experience. Certain general topics, as atrophy, hypertrophy and degenerations are elucidated by still more fundamental discussions of metabolism, as of carbohydrates, fats, calcium, iron, pigments, etc. The diseases of the ductless glands are especially well illustrated. Destructive and reparative processes are grouped so as to bring out the relations of diseases ordinarily thought of as distinct, for example certain types of nephritis, hepatic cirrhosis, endocarditis, arteriosclerosis which last is sharply divided into arteriosclerosis proper and syphilitic and other secondary forms. Thus, in many ways, original and comprehensive points of view are suggested.

The Practical Medicine Series, edited by Charles L. Mix, A. M., M. D. The Year Book Publishers, 327 S. La Salle St., Chicago, 10 volumes annually, \$10.

Vol. 3, Eye, Ear, Nose and Throat, edited respectively by Casey A. Wood, C. M., M. D., D. C. L.; Albert H. Andrews, M. D. and George E. Schambaugh, M. D. 376 pages, illustrated, \$1.50.

Vol. 2, General Surgery, edited by John B. Murphy, A. M., M. D., LL.D., F. R. C. S., 620 pages illustrated.

This comprehensive review of current medical literature is eminently satisfactory. The volume on surgery is, we believe, the largest yet issued. It exceeds many text books that aim to cover the entire field of surgery in condensed fashion. The considerable amount of new experience in military surgery, especially in regard to infections and the application of the X-ray, extensive work in abdominal and central nervous surgery account for the unprecedented increase in original matter worthy of review.

Thirty-Seventh Archaeological Report, 1915, being part of the Appendix to the Report of the Minister of Education, Ontario.

Twenty-Ninth Annual Report of the Bureau of American Archaeology, 1907-8, Ethnography of the Tewa Indians, John Peabody Harrington.

Thirtieth Annual Report, same, 1908-9, Ethnobotany of Zuni Indians, Matilda Coxe Stevenson; Inquiry into the Animism and Folk Lore of the Guiana Indians, Walter E. Roth.

An article by W. R. Harris, D. D., LL.D., on the Practice of Medicine and Surgery by the Canadian Tribes in Champlain's Time, in the first publication; the references to medicinal and food plants used by the Zunis and the customs and beliefs of the aborigines regarding obstetrics, and allied topics, are of considerable medical interest.

OUR CONTEMPORARIES

The Medical Pickwick, established by the late Samuel M. Brickner, is now edited by Julian Walter Brandeis, A. M., M. D., 156 W. 121, N. Y.

Our Dumb Animals, Boston, Aug. 1916, denounces, under the title of "Human Vivisection in Michigan—The Betrayal of a Sacred Trust," some investigations by Dr. Udo J. Wile of the University of Michigan. These were reported in the February issue of the Journal of Experimental Medicine under the title "Experimental Syphilis in the Rabbit, Produced by the Brain Substance of the Living Paretic." Credit is given Dr. Edmund A. Christian of the Pontiac State Hospital for the use of six paretics. Using ethyl chloride as a local anesthetic, "The skull was trephined over the frontal convolution at a point about one-half to one inch from the midline and well forward of the course of the middle meningeal artery. By means of a long thin trocar needle connected to a syringe a small cylinder of gray and white matter with some fluid from the ventricle was removed."

So far as we can judge, the first half of the title of denunciation employed by Our Dumb Animals is correct. Unless the story is a fake or deliberate misquotation has been practiced, human vivisection was practiced in the literal sense. As to whether this was a "Betrayal of a Sacred Trust," differences of opinion may well exist, although the issue is clarified by the fact that those charged with the offense are employed and paid by the State of Michigan and

that the subjects of experiment were public charges of the State. If, for instance, the patients had been the recipients of private care in a hospital avowedly conducted for purposes of investigation, the subjection to experimentation might be considered a *quid pro quo*, though not dismissing the general ethical and legal principle that the state may intervene in any contract for the interests of the individual and the public. The issue is further simplified by the fact that the operation can not be claimed to be either therapeutically or diagnostically in the direct interests of the patient. While not one of the first magnitude, necessarily involving considerable risk to the patient and while the condition of the patients was presumably such that nothing, even death, could in a sense be considered to their detriment, the operation was nevertheless, one of serious degree, by no means to be compared with the inconvenience of collecting excreta for examination, or with the practically inappreciable danger and pain connected with ordinary blood examinations.

Hence, the issue is as uncomplicated as might be wished. Does the medical profession or the law, countenance human vivisection? Are insane, or other dependents of the state, even including criminals, legitimate subjects for scientific experiment? It should be noted that, except from the standpoint of fanatics who condemn any kind of exploitation of the lower animals, the issue is not even complicated with that of animal vivisection and this question is waived even by the periodical which stands for the general humane treatment of animals. Simply to avoid dodging an issue, we may be permitted to express the opinion that human vivisection or experimentation for purely scientific purposes is improper under any circumstances, with the common sense qualification implied in the allusion to blood examinations, etc. On the one hand, we feel that the life and health of expert, voluntary subjects, willing to become martyrs to science, is worth more than any particular point which they may be willing to risk their lives to establish. On the other hand, we consider any human life as too sacred to warrant its use or risk for scientific purposes. An obvious ethical corollary is introduced when the patient does not realize that he is being exploited. If, after mature deliberation, which must be largely guided by the medical profession, the state formally and legally holds that the value of scientific research warrants the sacrifice, actual or potential, of any of its members, for the welfare of the great majority, as it now holds for serious crime, military purposes, etc., we might without inconsistency alter this opinion but we do not feel that the ethical principle involved can be set aside by private individuals, however worthy their motives.

A Prayer for Physicians.

From the pay dispensary; from health insurance; from deadbeats; from the incurable urethritis case; from the neurasthenic who keeps a diary; from the detail man who lectures on the physiology of the stomach; from the birth-control crank and other professional sociologists; from the writers of unneeded textbooks; from drug fiends; from the young married woman who is not strong enough to bear a child; from the laboratory that splits Wassermann fees; from breech cases in primips; from obese pigs who won't diet as directed; from night-calls; from fool legislation; from long-winded papers from new kinds of mouth gags and obstetric forceps; from food cranks who tell us how to live for ten days on a dollar and ten cents; from socialistic health boards; from half-baked specialists; from "practical" nurses; from New Thoughtists; from radium fanatics; from over-zealous Freudians; from the preliminary note on a new cancer treatment; from the seekers after false certificates of illness; from standardization "nuts"; from moribund journals, third-rate journals and freak sex journals—good Lord deliver us? —The Medical Times.

TOPICS OF PUBLIC INTEREST

State Road Fatality. During the last week of July an accident occurred on the state road at Irving, N. Y. that seems to us to raise an issue very different from the ordinary run of automobile accidents due to congestion or individual carelessness. On account of repairs to a small bridge or culvert traffic was detoured to the south side of the regular road for a few feet, with a dip of four or five feet below the road level. The temporary roadway was, as usual in such circumstances, rough and clayey. After regaining the level of the highway, a space of about 20 feet intervened before a trolley crossing and, for traffic toward Buffalo, this crossing was almost entirely hidden both by the higher level of the roadway at the side of the detour and by a rank growth of weeds between the culvert and the trolley track. A Pennsylvania car driven by a woman, after dark, in the rain, was struck by a trolley bound toward Erie, carried about a hundred feet along the track, demolished and the driver killed. In dry weather, by day-light, knowing the exact location of the trolley track and the exact condition of the detour, we found that it was easy enough to negotiate the detour on low speed and to come to a full stop before reaching the trolley track, although none too much space was available. Even a careful

driver, not fully acquainted with the exact permanent and temporary conditions, driving at minimum high-gear speed, or going into neutral, or changing to second speed to meet an emergency could not give attention to the bad detour and see a trolley approaching; could not maintain a speed sufficient to avoid stalling in the mud on the sharp upgrade and stop in time to avoid an approaching trolley if suddenly warned by another occupant of the car. The highway mentioned is not only a state road but an interstate highway, largely used by persons unfamiliar with exact local conditions. A more skillfully constructed death trap could scarcely have been designed for military purposes, to intercept an enemy car. Primarily on those in charge of the construction and ultimately on the state, rests the responsibility for this death and the other injuries inflicted—in a moral if not a legal sense.

The Stevens Pure Food Bill Pending in Congress has been endorsed by the Retail Grocers' Assn. of N. Y. State.

Exclusion of Canadian Nurses. Nurses from Ottawa, engaged on account of the demands imposed by the epidemic of infantile paralysis by hospitals in New York City, were turned back at Alburg, Vt., being dragged from their berths at night and put out into the rain. Immigration officials claim that they were acting under the alien labor law and that no unnecessary hardship was imposed. We have never been able to comprehend why an immigrant should be required to be able to show that he was not liable to become a public charge and, at the same time, should be compelled to trust to luck to get employment in this country. In the present, instance, the nurses were not immigrants and their employment was a matter of urgent need on the part of this country, a matter of personal devotion to professional duty on their part and, in a sense, a matter of international courtesy on the part of their country. It is most unfortunate that anything tending toward unpleasant international feeling should have occurred. When will we learn the lesson that the power to pass a law should be in accordance with a right on the part of the government, to make reasonable exceptions to it and comprehend the general principle that reasonable discretion should be granted to anyone empowered to enforce a law or rule?

State Quarantine Against Rabies has been threatened in the case of Buffalo. A number of dog bites have been reported, and 26 dogs' brains have shown 'Negri Costies. The local regulations as to muzzling of all dogs are being enforced

rigorously and the killing of unlicensed dogs is proceeding as rapidly as possible. We understand that Buffalo has had 1 human death from rabies in its entire history—14 years ago. It is said that most dispensaries treat more bites by human beings than by dogs and it is a matter of common observation that a large share of dog bites are due to molestation by the persons bit. All scientific reports show that rabies is more common in cold than in warm weather and we do not understand why dog laws should not be sensibly enforced throughout the year. Meantime, the local health and police authorities seem to be perfectly competent to control the situation without state intervention.

Anterior Poliomyelitis was first clinically described by von Heine, a German, in 1840.

Workingmen and Alcohol. A recent study of how one thousand workingmen spend their spare time and their spare cash indicates that by far the largest amount of spare cash is spent for beer—23 per cent of the total. Including beer, wine and whisky, the amount of spare cash spent by workingmen for intoxicating liquor amounts to 34 per cent of the total. These percentages are not of the total amount earned—they represent the items over and above what is required for the necessities of life.

The expenditure for beer shows a steady decline as wages increase—for example, men earning \$35 or more per week spend 7.6 per cent of their spare cash for beer. Those receiving less than \$10 per week spend 39.9 per cent of their spare cash for beer.

It has also been discovered that the man who works the longest hours per day spends the most time in the saloon. This proves conclusively that the workingman who is most fatigued at the end of the day's work is most likely to crave artificial stimulant.—Col. Med., Aug.

Brief for Health Insurance. From American Association for Labor Legislation, N. Y. City. A death rate for American wage earners twice that of professional men; the prevalence of high sickness rates; the need among workers of better medical care and of a systematic method of meeting the wage loss incident to sickness; and the necessity for more active work in the prevention of disease, are the corner stones of the case for compulsory health insurance presented in the brief just published in New York by the American Association for Labor Legislation. This situation, it is pointed out, cannot be met fully by existing agencies, and can only be properly remedied by a system of health insurance em-

bracing all wage earners and dividing the cost among employee, employer and the state.

The great amount of sickness in the homes of the poor causes an average loss by each wage-earner of 9 days in the year, and involves annually a national wage loss of approximately \$500,000,000. Notwithstanding the greater prevalence of tuberculosis among wage-earners, their early susceptibility to the degenerative diseases of middle life, and the excessive death rate among the industrial population, workers often are unable to secure the medical attention they require. In Rochester, N. Y., it was found that 39 per cent of the sickness cases were not under a doctor's supervision; in a city like Boston, Mass., one-fourth of the population, it is estimated, are unable to pay the fees of a private physician.

The lowered vitality and the poverty created by present day conditions it is claimed can only be checked by a system of health insurance, which for a small sum divided among employer, worker and state, will bring medical care to the wage-earner and his family, will assure for a maximum of 26 weeks in a year a weekly payment of two-thirds of wages during the bread-winner's illness, and in addition a small funeral benefit should he die. "Compulsory health insurance," concludes the brief, "is an economical means for providing adequately for the sick wage-earner, and will prove a mighty force for the inauguration of a comprehensive campaign for health conservation."

Prize for Artificial Hand. The National Society of Surgery of Paris, through the generosity of an anonymous donor, offers a prize of \$50,000 francs for the best invention, which must come from a citizen of an allied or neutral nation. There must be presented to the society, a patient who has used the device for at least six months, and the society will experiment with apparatus offered in competition for time as it deems necessary. The competition will close two years after the conclusion of the war. The successful apparatus will remain the property of the inventor. Those interested should apply for full information to M. le Secrétaire General de la Société Nationale de Chirurgie, Paris, 12 rue de la Seine.

Retired and Non-Practicing Physicians. Especially in the preparation of obituaries, we are seriously hampered by the lack of available data regarding physicians who have retired from practice. For statistic purposes, if no other, it is desirable to have a reliable and complete list of such members of the profession. The list published by the state society is very meagre. It might well be supplemented with many

names from the nominally active list, but that is a matter of individual choice. Will our readers who have abandoned the medical profession for other kinds of work or who know of such non-practicing physicians, supply information for extending this list?

Father Jogues, a Jesuit missionary of the seventeenth century has been named for canonization. He was killed by the Indians at Auriesville, N. Y. His description of the ethnology of the Iroquois is of great value and some of his notes, as his very modest tale of his previous tortures, have a direct bearing on historic medicine.

Indian Centenarian. Gwan-ha-day, the oldest Iroquois, died at Toledo, last month, at the age of 104, leaving a widow 98 years old. The remains were buried on the Salamanca Reservation.

Increase in the Public Health Service. An appropriation has been made for 33 additional Assistant Surgeons, the salary being \$2,000, with perquisites and subject to increase by promotion. It is expected that examinations will be held every month or so until the requisite number of eligible candidates have been secured. Those interested should apply to the Surgeon General, U. S. Public Health Service, Washington, for invitation to be examined.

Educational Statistics. Critics of the A. M. A. should give proper credit to this organization and its executive officers for the very valuable statistics on professional education, annually published in the Journal. If the A. M. A. merely compiled the statistics and had done nothing to secure the improvements noted, and if its officials were guilty of all the sins of omission and commission charged against them, the Educational Number of the Jour. of the A. M. A. would alone constitute an important offset.

In 1916 there were 13,121 non-sectarian students, 638 homoeopathic and 263 eclectic, other destinations of colleges having ceased to exist in 1911. The total, 14,022 is 869 below that for 1915, and more than a thousand less than in 1890.

Graduates this year numbered 3,274 non-sectarian, 166 homoeopathic, 78 eclectic, total 3,518, 18 less than in 1915. There were only 134 women included, the percentage having remained about 4 for the last 12 years. 26.9% of all graduates held liberal arts degrees, a gradual increase from 15.3% in 1910.

There are now 95 medical schools conferring degrees, 53 having been merged and 41 abandoned since 1905, the maxi-

mum total being 162 in 1906. 99 colleges, however, conferred degrees in 1916, 68 being Class A, 18 B and 13 C. Of the students, however, 79.6% attended A, 14.9% B, and 5.5% C colleges.

24 states now require one year of college training and W. Va. will do so for the session of 1917-18. 8 of these will require two years within a few years as do 9 already.

It may be claimed that the educational problem for our profession has been solved, according to reasonable standards of both preliminary and professional training, to the degree of approximately 90%. The economic problem connected with it has been solved to the extent that, from 1913 to 1919 (the number of students assuring against any sudden influx of matriculants at least for this period) new graduates will not have exceeded deaths in the profession by more than 500 a year. So far as can be estimated, this excess will have been provided for directly, by newly established national, state and other governmental positions. At any rate, the population is growing at a greater rate than the profession. Of course, it will still require many years to produce an equilibrium between demand and supply.

The report contains a great deal of interesting information aside from the gross statistics quoted.

Novocaine Excluded From Harrison Law. In a suit by the Farbwerke-Hoechst Co. to recover taxes paid under protest, according to the ruling of the Internal Revenue Dept., the U. S. Court in N. Y., Judge Grubb presiding, has decided that novocaine does not come under the law. Apparently, the same principle has been demonstrated for holocain, orthoform and anaesthesin. A curious coincidence is that the president of the company, Herman A. Metz, was a member of congress who took an active part in securing the passage of the Harrison bill. This law should certainly be amended so as to prevent arbitrary decisions by persons untrained in medicine, contrary to fact and common sense. In the past, it has been ruled that, under certain circumstances personal consultation with a physician is not a personal consultation, as well as that drugs which are in no sense narcotics or habit-forming, are so.

Bequests of the Late J. William White. \$150,000 endowment of a professorship of surgical research in the University of Pennsylvania; \$5,000 to the College of Physicians of Philadelphia (this organization being a medical society, not a teaching institution); \$10,000 whose interest is to be divided into three equal parts and used, respectively, as a prize for nurses in the University Hospital, as a prize for internes

in the same, and for the purchase of Christmas presents for children in the hospital wards. Be it remembered, that Dr. White forbade any religious service at his funeral, was not a religious man in any sense, yet this last little bequest—ample for the purpose—impresses us more deeply than the larger endowment. Could anything be more truly Christian?

The Poliomyelitis Epidemic, according to statistics issued by the U. S. Public Health Service Aug. 17, has invaded 38 states. 11,117 cases have been reported, many on farms or in small villages. The principal focus of the epidemic seems to be Brooklyn. Greater N. Y. City has reported 6,573 cases and the state, mainly near N. Y. City, about 1,000 more. 1,714 cases have been reported from N. J.; 336 from Pa.; 105 from Mass. N. H. had reported only 7 cases, in spite of thousands of visitors for the summer from the infected area, and in no case could contagion be traced. Among 30,000 children in state institutions, using the same water, milk and food supplies as private families in the metropolis, no cases had occurred. No case had developed near the N. Y. City garbage dumps. Even in Brooklyn, there was no excess of cases in crowded and poor sections of the city. Quite a few adult cases have occurred, as a woman, aged 20, at Curtis, Steuben Co., where 5 cases of the disease and 1 death have been reported up to Aug. 20; a divinity student aged 22 at Sherrill, near Utica; a second adult in Steuben Co.; Dr. Leroy Vail of Flushing, aged 30. A moderate number of cases have occurred, singly or two or three to a town, in western N. Y. Buffalo shows the lowest record for several years: 1910, 52 cases, 5 deaths; 1911, 9 cases, no death; 1912, 316 cases, 23 deaths; 1914, 9 cases, 2 deaths; 1915, 31 cases, 5 deaths; 1916, to Aug. 20, 2 cases, 1 death. Considerable inconvenience has been due to enforcement of quarantine, Pennsylvania rigorously excluding entrance of children without a health certificate. Dr. G. W. Goler, Health Commissioner of Rochester, having had two cases in N. Y. children provided with certificates has refused to issue anything more than a statement of actual number of cases (2 we understand to date) and absence of clinical symptoms. It is proposed to institute national quarantine regulations.

Sewage Disposal Plant for Fredonia. Low water in Canadaway Creek, into which sewage flows, has caused sufficient concentration to be objectionable. Steps have been taken toward a remonstrance to the State Board of Health with the hope of reviving a plan for the erection of a sewage disposal plant. A few weeks ago, we stopped on the outskirts of Fredonia for water for a radiator, and received some

drawn from a spring in the bed of another creek, near the junction of two roads. The statement was volunteered that this water was much used for domestic purpose by neighbors, though usually boiled. There is practically no stream in western N. Y., except high up on hills, which can safely be used for drinking or other domestic purposes without boiling.

Teutonic War Statistics. Prisoners, 1914-15, 1,695,000; 1915-16, 2,658,000. Of German wounded, 90.2% returned to active service, 1.4% died, the remainder were permanently unfit for service.

Opium Trade. A Chinese from Niagara Falls, under treatment in the Buffalo Municipal Hospital as an opium addict, was sentenced Aug. 3 to six months in the penitentiary for smuggling opium into the hospital and selling it to patients, thus explaining the failure of treatment in several cases. Later it was claimed that he did not bring it into the hospital, but sold it to patients outside.

Sunstroke. 100 deaths of human beings, 50 among infants, are said to have occurred in Chicago in one day, toward the close of July. Hundreds of horses are said to have been killed by the heat. In Buffalo, the total number of deaths was 10, up to the beginning of relatively cool weather early in August. It occurs to us that the relation of sunstroke and heat prostration to temperature and humidity, and the very marked seasonal and local differences which do not seem to run parallel with these factors, should be very carefully studied, for the whole country. We cannot free ourselves from the conviction that sunstroke is largely due, though indirectly, to alcoholism, and that another important factor is unnecessarily heavy clothing. The class most liable to sunstroke, is in our experience, prone to wear woolen undergarments throughout the year.

The New York State Civil Service Commission calls attention to the numerous openings for physicians in state hospitals, prisons and charitable institutions. Salaries range from about \$1200 to \$2000. There is a lack of applicants or, at least of successful candidates for some positions. Those interested should address the commission at Albany.

Automobile Statistics. In 1906, 48,000 motor vehicles were registered in the U. S. During the year ending July 1, 1916, 2,445,664 were registered, about 1 to 44 inhabitants. As the millionth Model T Ford was turned out last winter and as

the sales for the present season must more than balance the earlier Fords which have passed out of commission, Mr. Ford's expressed ambition two or three years ago to have every third car a Ford, must have been realized. In Alabama, there is only 1 car for every 200 persons while the maximum was reached in Iowa, with 1 for every 16, or about 1 car for every three families.

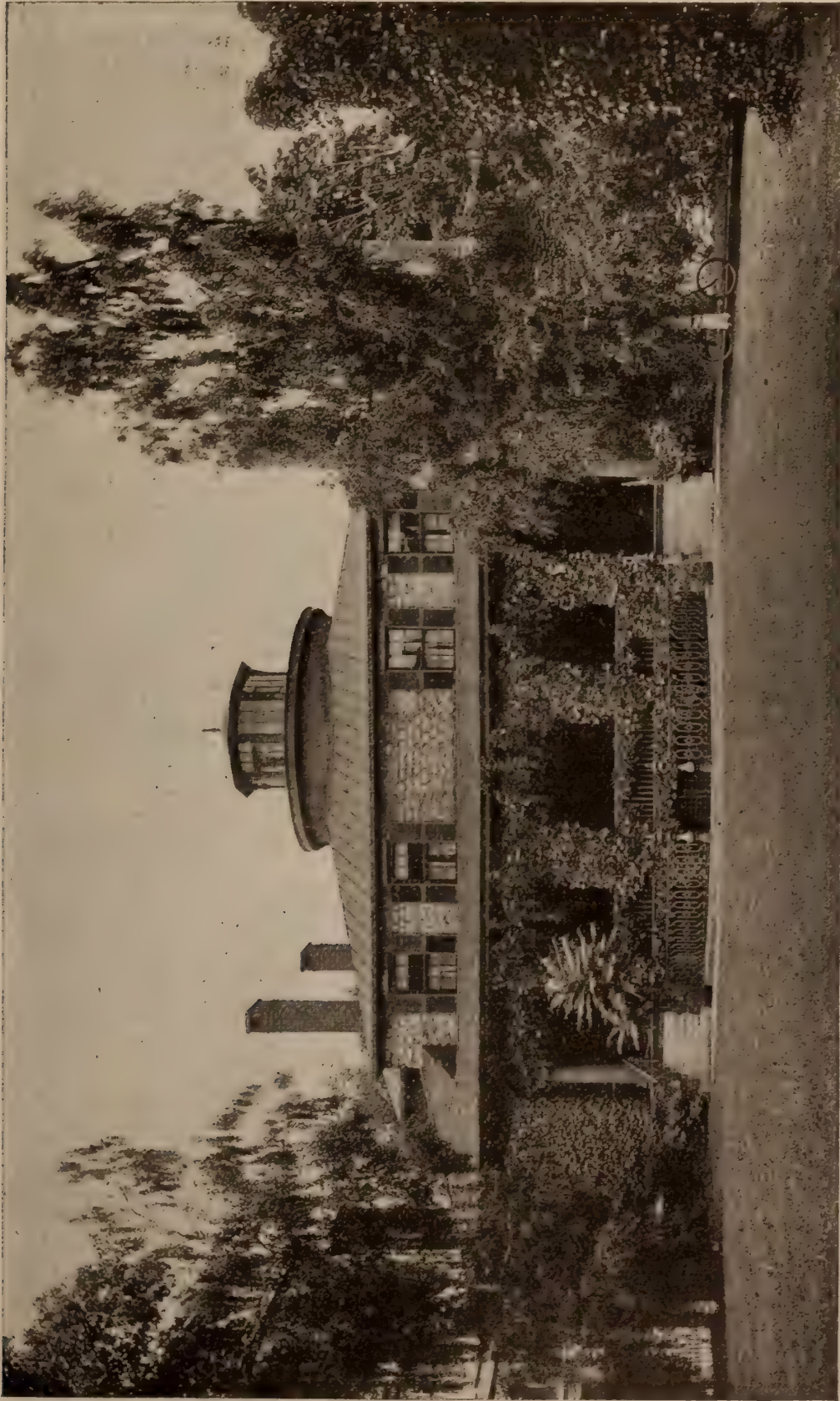
Theft of Narcotics. On the night of July 25-6, 180 cocaine tablets and a hypodermic syringe were stolen from the office of Dr. E. F. Burns of Buffalo.

Steuben County Tuberculosis Hospital. A site in the village of Addison has been favorably considered, the only other one regarded as available being about two miles from Canisteo. Residents of Addison are protesting against the selection of that village, though assured by local and other physicians of the absence of danger. (Note: At the risk of seeming to oppose progress, we can not quite reconcile the well established relation of the tubercle bacillus to the disease with the assurance that a collection of patients involves no danger to the immediately surrounding population. A tuberculosis hospital should be easily accessible by railroad but it would seem possible in all instances to secure a site sufficiently isolated from actual habitations to insure the adequacy of natural modes of disinfection, largely by sun light, within the time and space limits of danger from direct contact, dust, etc., and to avoid contamination of streams).

Base Hospital Unit for Rochester. Our Associate Editor, Dr. Chas. W. Hennington, is one of the prime movers in securing volunteers for the entire personnel of a base hospital, to be offered to the United States, at any time that it may be required.

The Johnson Cottage, a land mark of Buffalo, has recently been demolished. It was the residence of Dr. Ebenezer Johnson, first mayor of the city of Buffalo in 1832, and again mayor in 1834, and well known, before and after his mayoralty, as prominent physician and citizen. It was built in 1833-4. One of the three great disadvantages of this country, is its lack of antiquities—the other two being the high cost of living and the interference with personal liberty. The last two advantages of the western European nations are, of course, seriously interfered with by the war which is also leveling the first difference. One can almost count on his fingers the American cities in which there is any building worth looking at on account of age. If we continue to de-

stroy buildings at 50 and 75 years, we shall have none a century old. The cut is furnished by courtesy of Mr. Frank H. Severance, Secretary of the Buffalo Historical Society, having been published in "The Picture Book of Earlier Buffalo," Vol. 16 of the Society's publications.



Postponement of Amalgamation. The University of Pennsylvania and Jefferson medical schools will conduct their courses independently during the coming session, in order to afford time for considering a number of details in regard to the merger.

Reduction of Typhoid in Toronto. In 1910, the typhoid mortality was 40.8 per 100,000 population. In 1915, it was 1.9, the lowest for any American city of 350,000 and over.

Change of Name: The International Health Commission of the Rockefeller Foundation, to International Health Board of the Rockefeller Foundation.

War Casualties. We have previously commented on the apparent exaggeration of fatalities, loss by wounds, prisoners, etc., in the European War. The following table published in the Literary Digest, for the first two years of the War, based on published lists and careful estimates is 1,700,000 lower for killed; less than a million greater for wounded and prisoners together, and about 800,000 lower on the aggregate losses than statements for the first ten months of the war. We are not certain, however, that the 2-year statistics include prisoners and, in the Civil War, "missing" usually meant dead but without identification of corpses. Even if this qualification applies to the present war, the killed, wounded and missing for the two years are only about 2 million in excess of the same estimates for the first ten months.

	Killed	Wounded or Missing	Total Casualties
Germany	907,327	2,255,300	3,162,627
Austria-Hungary	500,000	1,500,000	2,000,000
Turkey	60,000	240,000	300,000
Bulgaria	40,000	110,000	150,000
France	800,000	1,200,000	2,000,000
Great Britain	150,000	470,000	620,000
Russia	1,000,000	4,000,000	5,000,000
Italy	35,000	140,000	175,000
Belgium	30,000	120,000	150,000
Total	3,522,327	10,035,300	13,557,627

Super-Medication. Our Associate Editor, Dr. C. Haase of Elmira, has recently been consulted by a woman who states her previous medication (in writing) as follows: Tablets for kidneys (swamp root) every 4 hours; strychnine 1/60 gr. every 4 hours; tonic after meals; massage with oil of turpen-

tine twice daily; asafoetida pills; powder after meals for indigestion; cascareds for constipation, after meals; cod liver oil, three times a day; dessertspoonful of Duffy's Malt Whiskey, four times daily; egg and milk twice daily; white pine syrup with tar, for the air passages; iron and wine as tonic.

Joined Twins. W. P. Durham of Sasser, Ga., Am. Jour. Clin. Med., Aug., reports a case similar to that of Dr. Laura



M. Plantz in the June issue. They were delivered without difficulty at the seventh labor of a negress, stillborn, total weight 16 pounds. Cut by courtesy of editor.

The Medical Commission in charge of Saratoga Springs, has been abolished. Dr. Albert Warren Ferris, the Superintendent, has entered private practice at Saratoga Springs.

Twilight Sleep has been abandoned at Johns Hopkins Hos-

pital, after a year's trial, on account of the danger, to both mother and child.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

Medical Society of the United States. Organization Officers—A. H. Ohmann-Dumesnil, St. Louis, President; George Howard Thompson, St. Louis, Secretary; Emory Lanphear, St. Louis, Treasurer.

Vice-Presidents—Carl Keller, Honolulu; Nobel Younkin, Frankfort, Ind.; Oscar J. Fullerton, Waterloo, Ia.; William F. Waugh, Muskegon, Mich.; Bruno F. J. Getzlaff, Sutton, Neb.; Geo. L. Servos, M. D., Reno, Nev.; J. Necurvus Pyle, Mineral Wells, Tex.; C. A. Bryce, Richmond, Va.; Josef Francois Replogle, Wyoming.

The Annual Meeting of 1916 will be held in the Planters' Hotel, St. Louis, Mo., October 3d, 4th and 5th.

Organization—The Medical Society of the United States has been organized for the purpose of founding a great National Society which shall include all reputable members of the medical profession who have not (for one reason or another) affiliated themselves with the American Medical Association or its branches, as well as members of that great body who have become disgusted with its management under present control. Graduates of homeopathic and eclectic colleges are admitted upon the same terms as those of the so-called "regular" schools. Its scheme of organization will be noted below.

Objects—The objects of this association shall be the improvement of the status of the Medical Profession of the United States through meetings, publications, lectures, etc., the promotion of the Public Health by means of improving sanitation and instructing the people in matters of Hygiene, Eugenics and Social Economy; to secure uniform examination and registration in the various States of the Union, together with more practical methods of reciprocity between State Boards of Health, and to issue to its members Certificates of

Membership which shall be of value in securing reciprocity, and to promote the interests of the Medical Profession of the United States in regulating, so far as possible by its influence, the conduct of medical schools, hospitals and journals, and to establish and maintain a Home for Aged Physicians to be supported by voluntary contributions from members of the association.

Location—While the membership of this Society may include reputable physicians of the entire United States, its territories and colonies, the general offices shall be located in the city of St. Louis, Missouri.

Management—The corporate affairs of this Society shall be managed by a Board of Directors composed of five members of the Society, who shall have power to engage and appoint employees (such as stenographers, clerks, editors and their assistants) and to discharge them, to carry on the financial affairs of the corporation—subject to the approval of the entire Society in annual meeting assembled. This Board of Directors shall be elected at the annual meetings of the Society, wherever held, and shall be subject to the instructions of the Society in such annual meeting assembled, in the matter of the selection of the Officers of the Society, who, with the exception of the President and Vice-Presidents, shall be the proper officers of the Board as well as of the Society. The Board shall have the right to select its own chairman.

Officers—The Officers of the corporation shall be a President, a Vice-President for each State, Territory and Colony of the United States, a Secretary, a Treasurer and a Manager (the last named of which may also hold any other office), whose respective duties shall be defined in the By-Laws to be adopted hereafter by the Board of Directors.

Powers—This corporation shall have the power to formulate rules and regulations for the conduct of its members, and to enforce them to the extent of expulsion of such members as shall be proven guilty of violation of them; shall have the right to establish branches in such cities and counties throughout the United States and its territories and colonies as the Board of Directors may deem best for the welfare of the Society; shall be empowered to hold property in its corporate name, to buy and sell such property, to publish and print periodicals, brochures, reprints, reports, transactions, etc., concerning its own affairs and the Science of Medicine and allied subjects, to accept bequests and donations; to own and operate printing establishments and employ such help as may be necessary therefor, and to conduct any and all such businesses as a natural man might wish to conduct.

Preliminary Program:

Detection of Monolateral Malingerers of Hearing, with Demonstration of Instrument, Carl B. Wagner, M. D., Chicago, Ill.

Electro-Therapeutics as a Specialty for the General Practitioner, Homer C. Bennett, M. D., M. E., Lima, Ohio, Secretary National College of Electro-Therapeutics.

The Internal Secretion from the Testicle, Winfield S. Hall, M. D., Ph. D., Chicago, Ill., Professor of Physiology in Northwestern University.

Some of the Uses of Electricity in Ophthalmic Practice, W. Franklin Coleman, M. D., M. R. C. S., Eng., Chicago, Ill., Professor Ophthalmology in the Post-Graduate Illinois Medical School.

Subject Unannounced, C. S. Neiswanger, M. D., Chicago, Ill., Professor of Electro-Therapeutics in the Post-Graduate Medical School of Chicago.

Why the Brain Has Little to do with Memory, Perception or Thinking, Leonard K. Hirschberg, A. B., M. A., M. D., Baltimore, Md., Chief of Clinic of Nervous Diseases Baltimore City Hospital, Instructor at Johns Hopkins University.

Significance of Remissions in Paretic Cases, R. Harvey Cook, M. D., Oxford, Ohio, Physician in Chief to Oxford Retreat.

New Procedures in the Field of Dermatology and Syphilis, William S. Gottheil, M. D., New York City, Professor of Dermatology and Syphilography in Fordham University Medical School.

Possibilities and Limitations of Radium, Evan O'Neill Kane, M. D., Kane, Pa., Surgeon in Chief to Kane Summit Hospital.

Subject Unannounced, J. C. Tritch, A. M., M. D., Findlay, Ohio, Gynecologist to Tritch's Home and Hospital.

Some Tumors of the Kidney with Presentation of Specimens, Emory Lanphear, M. D., Ph. D., LL. D., St. Louis, Mo., Chief Surgeon to the German Hospital.

Significance of Bladder-Symptoms in Gynecologic Practice, W. A. Newman Dorland, A. M., M. D., Chicago, Ill., Professor of Obstetrics, Loyola University.

Infectious Embolism: A Factor in Chronic Ailments and Convalescence, John Aulde, M. D., Philadelphia, Pa., Medical Director of Arden Health Institute.

Subject Unannounced, Finley Ellingwood, M. D., Chicago, Ill., Editor Ellingwood's Therapeutist.

Report on Some Original Investigations, Thomas H. Kelley, M. D., Chicago, Ill., Professor of Surgery in Loyola University.

President's Address: Some Observations and Reflections

on Medical Ethics, A. H. Ohmann-Dumesnil, A. M., M. D., Ph. D., St. Louis, Mo., formerly Professor of Dermatology in the Marion-Sims College of Medicine.

Rectal Fistulae, Charles J. Drueck, M. D., Chicago, Ill.

Subject Unannounced, Adam Bode, M. D., St. Louis, Mo., Associate Gynecologist to the German Hospital.

Subject Unannounced, Emanuel F. Oehler, M. D., Ph. B., St. Louis, Mo., Associate Surgeon to the German Hospital.

Observations on the Allbe Operation for Tuberculosis of the Spine, F. L. Morse, M. D., St. Louis, Mo., formerly Professor of Genito-Urinary Surgery in the American Medical College.

Note: This announcement is accompanied with a request for the expression of an opinion. In general, we would not oppose any medical organization of proper purpose. In this instance, we reprecate, on principle, any action tending to divide the profession. The medical history of New York State has too recently illustrated the practical disadvantages of such a division. At the same time, we appreciate the causes of this movement. While we do not feel that either the A. M. A. as a body or its officials have been guilty of wrong doing, there is a widely diffused sentiment that it is too strongly and closely governed, and that such an organization, for an association as for a people involves potential dangers. Many believe that the state and county branches of the A. M. A. should be allowed greater elasticity of local organization, to conform to local conditions or desires; that it should be possible for every member to express opinions and to vote upon issues arising, that in short, there should be an average between the governed and the governing; that the official organization journals should offer the privilege of free discussion. Of course, these criticisms might be supplemented with a repetition of specific complaints, but we are sceptic as to the evils charged in the latter and we prefer to deal only with general matters of policy. But, we feel that the correction of the methods of the A. M. A. should be freed from personal bitterness and should take place within that body, in accordance with the real wishes of its membership. Meantime, it must be admitted that the strong central government of the A. M. A. has made it a powerful body, has immensely increased its scientific standards, has brought about many ethical improvements and has given a quid pro quo to its members. The movement to organize a rival society should, we believe, be turned in the proper direction to retain professional unity and to secure professional harmony and satisfaction.

The Gross Medical Club. The regular meeting was held on Friday, August 18th, at Alden, being entertained by Dr. B.

J. Gipple, Pres. W. Warren W. Britt occupying the chair.

A very interesting paper, Peritonsillar abscess, by Dr. Edgar Forsythe in which he reported a case in which infection extended to the brain resulting in abscess formation, was discussed by those present.

Dr. Arthur G. Bennett brought out that if adrenalin was added to cocaine when injecting into inflammatory tissue it would be absorbed—cocaine is not absorbed by inflammatory tissue if used alone.

Dr. Gipple reported the case of a child aged 12 who suddenly puffed, swelled all over the body to an extent the face was distorted almost out of recognition: breathing was not interfered with. He gave the child small doses of adrenalin and he recovered after a few hours. The general concensus of opinion was that this was a case of angeo neurotic oedema.

Dr. Rooker a case of headache, which he believed to be migraine and with periodical attacks had lasted for 18 years, nothing seemed to relieve, only rest in bed for two or three days seemed to have any effect. Patient was finally sent to nose and throat specialist who found involvement of the ethymoidal sinuses, these were operated on and there has been no headache in three months.

Dr. Bennett after being informed there was no eye or other involvement referable to the brain, questioned the opinion of migraine, and recited the history of a case in which by eye examination the conditions of this kind are proven, and that when eye and other involvement is not present the condition is not migraine, but due to some condition of the nose. He minutely described the prodromal attack, calling attention to hemiopia as being about the first symptom present, the rest following in a short time. He remarked that the fearful headache was probably the most distressing, the one the patient complained of most and the one they felt the most interest in, as to relief. He believes the headache is due to first a spasm of certain vessels which gradually relax until a whole area may be involved, and if on the left side there will be more or less interference with speech. In one case of which he had a personal knowledge of for years, after careful study and the use of various preparations he had found that if when vision became sort of obscured and other of the premonitory symptoms present a vaso dilator be given at once (he has found that whisky is the best) very little if any headache will follow, in fact many times he has prevented it entirely.

Dr. Dowd, a case of a man that when erection occurred the penis bent upwards in the shape of a U, to such an extent that the glans touched the abdomen making intercourse impossible, this man was impotent. In these conditions some-

thing is always found blocking the Corpora cavernosa, it may be due to a cicatrix following an internal urethrotomy, a tumor or injury. In this case a firm mass could be felt at the root, cartilagenous in character. No internal urethrotomy had ever been performed, nor was stricture found. The patient having had syphilis, the condition was undoubtedly gumata, antisyphilitic treatment was ordered. Another case was that of a woman married about six years, she had never been pregnant, not missed a period. Consulted the reporter for what I diagnosed as neurasthenia. There was obstinate constipation, profuse leucorrhoea, no appetite and she was losing flesh. No evidence, except a catarrhal endometritis was found from vaginal examination. The urine showed perfect, except an index about 80% minus. Comp. Phos. Tonic (Dowd) M 25, res. pod. gr. 1-10 (for constipation) in glycerine for one drachm was ordered. This patient was not seen again until two or three days ago when she came to the office with her sister. She spoke of how well she felt, had gained much in weight, but no menses for three months: all symptoms of pregnancy were present. This is the fifth similar case occurring in my practice, yet in none of them was the condition spoken of, yet all courted pregnancy. We know that out of every six cases of sterility, the woman is at fault five times and that the most common cause is a granular endometritis, yet all will not submit to curetment. My only explanation is a dormant condition of the ovaries, and as the very life of the ovum is phosphorus and the ovaries directly under control of the brain and nervous system, it is only a suggestion—in sterility get the Phosphatic Index.

Dr. Phelps, a case of a butcher, who after skinning two head of cattle that had died, later proving to be from anthrax, contracted this disease. Two swellings occurred on thumb, looking like carbuncles. At first there was no fever, but it suddenly rose to 102 F, patient becoming slightly delirious. The swellings were both removed, examination showed them to be anthrax: he made a good recovery.

Dr. H. B. Deegan of N. Tonawanda and A. M. Rooker of Niagara Falls were elected to membership.

New York and New England Association of Railway Surgeons. The twenty-sixth annual session will be held at the Hotel McAlpin, New York City, on Wednesday, October 18, 1916. A very interesting and attractive program has been arranged. Dr. Wm. S. Bainbridge will deliver the "Address in Surgery," on the Cancer Problem. Railway surgeons, attorneys and officials and all members of the medical profession are cordially invited to attend. Dr. D. H. Lake, Presi-

dent, Kingston, Pa.; Dr. George Chaffee, Corresponding Secretary, Little Meadows, Pa.

The American Assn. for Study and Prevention of Infant Mortality will hold its seventh annual meeting at Milwaukee, Oct. 19-24. Technical, sociologic and popular papers will be presented, various affiliated organizations will report by committee and conferences will be held. An exhibit will be made. Those interested are invited to attend or to become members. Life membership is \$200, sustaining \$25 annually, contributing \$10, active \$3. Affiliated societies may be enrolled at \$5 annually. Checks should be sent to the Treasurer, Austin McLanahan, 1211 Cathedral St., Baltimore. Portable exhibits can be secured for local campaigns on application.

The Elmira Clinical Society held its regular meeting, July 25, at the residence of Dr. Wm. Brady, who presented a paper on Mechanic Technic.

CURARE

The reputed action of curare to produce motor paralysis while sensation remains unimpaired, being out of analogy to the action of most drugs and supported mainly by tradition and fine writing, has seemed to us worth investigation. Curare is a strong "talking point" with antivivisectionists, although it is seldom used at present and obviously should not be if its action is as reputed, unless very urgent reasons counterbalance the demand for mercy. Support of the peculiar action claimed for curare can obviously depend only on the statement of human beings who have recovered from the poison, which is usually fatal in large dose and very little employed therapeutically in small dose. In small dosage, any narcotic may fail of its purpose to deaden pain perfectly and allowance must be made for this fact and the general imperfections of subjective evidence. Out of a considerable number of inquiries made, only the two following replies have been received, except that some have written that they were unable to speak from positive knowledge and have not employed curare in animal experimentation.

University of London
King's College

Strand, W. C., 7-28-'16.

The cases in man are so rare, that it is not safe to assume that curare kills sensation. There are cases which show it

has such an effect, but it is safest not to regard it as an anesthetic. It is not so regarded by the English law, and in those rare cases where its use is necessary, it can always be combined with the administration of some anesthetic concerning the power of which there is no doubt.

W. D. HALIBURTON.

Harvard Medical School

240 Longwood Avenue, Boston, Mass.

July 24, 1916.

Dear Dr. Benedict:

There is in the literature a conflict of evidence regarding the action of curare on afferent nerves. The earlier observations led to the conclusion that it might be a sensitizer, at least of the spinal cord, so that it would have an effect something like strychnine so far as afferent nerves are concerned. Later evidence has indicated that it is, in sufficiently large doses, depressant for all active structures. I have written to a number of the most eminent pharmacologists and they have all testified that, under the circumstances, they would not trust to its anesthetic action, but would invariably employ along with it some anesthetic drug.

You are right in understanding that curare is relatively rarely used by experimenters. So far as I know, the testimony of the pharmacologists, which I have given above, expresses the spirit in which workers generally would employ curare. I have recently employed it myself in a few experiments, but only after decerebration under ether.

Yours sincerely,

W. B. CANNON.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. John B. Murphy, of Chicago, the celebrated surgeon and author, died suddenly of heart disease at a hotel on Mackinac Island, Aug. 11.

Dr. L. Albert Neisser, Prof. of Dermatology at Breslau and known as the discoverer of the diplococcus of gonorrhoea, died in Berlin, July 30.

Dr. Alfred Cleveland Cotton, Rush 1878, a well known

paediatrist of Chicago, died at his home July 12, aged 69. He was the author of several books on diseases and dietetic management of children.

Sir Wm. Ramsay, the noted English chemist, who discovered argon, neon, cryton and xenon, all gaseous elements, and who transformed radium into helium, died July 23, aged 62.

Dr. Wm. Langley, not listed in Polk or State Directory, died at Angelica, July 22, aged 40.

Dr. Henry Collidge Frost, Cleveland Homoeopathic 1874, of Buffalo, died in Montreal, July 25.

Mrs. Martha Weare Gratwick, widow of Wm. H. Gratwick, died in Buffalo July 26. She provided the funds for the erection of the Gratwick Laboratory, now included in the N. Y. State Institution for the Study of Malignant Diseases.

Dr. Frank C. Clarke of Catskill, N. Y., Buffalo 1873, died at Palenville, May 30, aged 64.

Dr. Hopestill R. Phillips of Penn Yan (not listed in Polk nor State Directory) died July 19. He was a Confederate veteran. He leaves two sons in the profession, Wm. H. of Bath and Samuel A. P. Phillips of Coudersport.

Dr. Henry Clay Baum, Michigan 1883, a prominent practitioner of Syracuse, died Aug. 6.

PERSONAL

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Frank C. Kleckner of Buffalo announces the removal of his office to 2254 Main Street. Practice restricted to diseases of the nose, throat, eye and ear.

Dr. J. Walter Fitz Gerald of E. Utica Street, Buffalo, spent July at Georgian Bay.

Dr. George Edward Fell of Buffalo has been seriously ill but has recovered sufficiently so that he would be glad to see his friends at his new home, 209 Porter Avenue.

Dr. J. H. Carstens of Detroit has moved his office to 1447 David Whitney Building.

Dr. A. E. Woehnert of Buffalo returned from a motor trip to the east, about the last of July.

Dr. Burt C. Johnson of Buffalo returned from a two months' trip to Alaska, August 6.

Dr. Henry Dowd of Buffalo, moved to 9 N. Pearl Street, in May.

Dr. Arnold H. May of Buffalo returned September 1 from New York, where he spent most of August.

Dr. James Wright Putnam of Buffalo spent August in Maine.

Dr. Richard J. Gould of Buffalo has moved to 1355 Main Street.

Dr. A. E. Clarke of Buffalo has moved to 2300 Main Street.

Dr. Edward Torrey of Olean has been appointed Superintendent of the Cattaraugus Tuberculosis Hospital which will occupy a new brick building on the mountain near Rock City.

Dr. John W. Le Seur of Batavia, former State Medical Inspector, was appointed August 14, to take charge of the poliomyelitis epidemic in Erie, Genesee, Monroe, Niagara and Orleans Counties.

Dr. Edward Clark of Buffalo has been given charge of the poliomyelitis epidemic in Westchester Co.

Dr. Julius Richter of Buffalo has been appointed first lieutenant in the Army Medical Reserve Corps.

Dr. and Mrs. F. A. Hayes of Landon Street spent the latter part of July and the forepart of August motoring in the Adirondack and Catskill Mountains.

Dr. John F. Fairbairn of Buffalo returned, the middle of August, from a month's trip to the Canadian northwest.

Dr. Benjamin H. Grove of Buffalo returned early in August from a trip to Atlantic City.

Dr. Homer J. Grant of Buffalo visited the Massachusetts coast in August.

Dr. Edith F. Ryan of Batavia, who has recently completed a year's interne service in the Philadelphia Woman's Hospital, has been appointed physician to the Child Welfare Station of Batavia.

Dr. Edmund E. Blaauw of Buffalo, returned August 1 from a motor trip to Maine, via the Adirondacks and White Mountains.

Dr. Cressy L. Wilbur, formerly chief statistician for the U. S. Census and recently Director of Vital Statistics for the N. Y. State Health Dept. while suffering from melancholia, cut his throat with a razor, July 30 but not fatally.

Dr. John R. Simson of Kenmore, had his auto wrecked in a collision, August 19.

The automobile of Dr. Cyrus S. Siegfried of Buffalo was stolen in August but was recovered. The report of the theft of the auto of Dr. J. J. Finerty of Buffalo, was incorrect.

Dr. John H. Evans of Buffalo announces the removal of his office to 519 Franklin Street. Practice confined to anaesthesia.

Dr. Brainerd Hunt Whitbeck, P. & S. 1903, of 40 E. 41, N. Y., is to move to Rochester and occupy the home of his father, Dr. John F. W. Whitbeck recently deceased. Dr. B. H. Whitbeck has devoted his attention to orthopaedic surgery.

Dr. Chas. W. Hennington, who has been spending the summer at Pt. Abino, Ont., has returned to Rochester.

ABSTRACTS.

102, Danysz Compound. Roger, Dalimier and Frenkel, Bull. De l'Acad. de Sci. Meh. 20, report favorably on this substitute for salvarsan. It contains arsenic, antimony and silver.

Other abstracts fill out pages at end of original articles and in advertising section.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Foreword of An American Balneology.

DR. FELIX VON OEFELE, New York.

The American physician is less acquainted with the American mineral springs than with the European ones. This seems astonishing in some way, since official research and official promotion is done by the Federal government in liberal amount for the basis of American balneology. The literature of American balneology is the proof of it.

The ownership influences the development. European mineral springs with an old history are owned by states or townships. The newer European springs are owned in large percentage by individual private people. A considerable number of American mineral springs became public property of the states or the federal government only in the last century. This development is quite different from Europe. The few older public American mineral springs are overshadowed by private springs of their vicinity. A strong majority of the modern American mineral springs are still individually owned. The principal American scientific balneological research kept the close relationship to the older public or federal mineral springs as substitutes of more famous European mineral springs.

The kindred advertisement of the American mineral springs stays either on a very low level or is too exaggerated in fantastic claims. Both procedures tend to evade the contact with the medical profession.

There exists neither a scientific standard nor a critical view in the recommendation of American springs. Every American mineral spring owner knows and believes in his own spring only. He claims it a panacea and looks with a supercilious countenance upon every other spring. The ther-

apeutic claims are based on some letters of laymen with political or social pull, who had some reason at that time to flatter the owner or his spring. The resident physicians are not consulted and are without any interest for the newly detected mineral spring. For further promotion, joint steps are unknown to the private owners of American springs. Baederalmanach or official compilations are lacking for the reference of physicians.

Furthermore, scientific medicine is too little interested in balneology. The scientific parts of professional periodicals contain less balneological matter than they did a century ago, and less than the European journals. It should be of more interest for the medical reader that the professional journals in the spring time bring extracts from publications concerning mineral springs with critical views particularly. There is a demand for information.

The enumeration of American balneological literature will show few books of Anderson, Crook, etc. But they cannot be compared with European scientific text books. For the greater part the American books are a mosaic, built from the unscientific answers of spring owners. And this can never be complete. The scientific collector commonly fails, expecting answers from spring owners. The European scientific advertisement of mineral springs has some effective schedule. One is the individual scientific booklet written by every average resident physician of the resort town. I have seen very few similar American booklets, for instance a booklet of a physician of Virginia Hot Springs in regard to gout. The large amount of similar European professional booklets furnishes the balneological compiler sufficient data.

The first need for an American balneologist is to be a more efficient collector than his European colleague. He has to collect first the names of the claimed mineral springs of 200 years, the names of the owners, detailed data of the location in geographical, physical and geological regard. The second are historical data; the third, other special circumstances. The exact geographical location is very important for identification of springs. It is still in doubt as to which springs of Saratoga County were used by Sir Johnson. Also the identification of other old mentioned springs is still doubtful on account of the absence of correct location. Street, township, county, state are often necessary.

The special difficulty of the collector starts by the average short efficiency of American mineral springs. Between 80 to 90% are again out of business in an average of four years. The inquirer cannot collect the names of the springs quick

enough for his files during the real business period of the springs.

Many of the remaining springs refuse to answer any letter of a professional man. Either the fairness of the spring is insufficient, or the spring owners are afraid to emit data for the benefit of a new competitor seeking information. Some of the answers feign to be kind by sending wordy phrases without any real information.

The few remaining informations are in a high percentage not trustworthy or evidently untrue. It is a common event to receive as an answer an analysis which was really published in a local paper some decades ago, but is the analysis of some neighboring spring out of business.

The average American physician has therefore a reason why he does not trust to the springs of his own country. He prefers the trustworthy European mineral springs. A mineral spring cure of any serious sickness was understood before the war to be a European one.

There are some advantages to a European cure. A trip on the sea is often an adjutory therapeutic agent and is often an assistant remedy. In other cases a trip on the sea is contra-indicated. A visit to Europe is often undesirable or, more often wholly impossible. If the degree of common culture would rise then there would be a larger percentage of the population visiting the mineral springs of the vicinity for a few weeks in summer.

There is still another historical reason for the prejudice of American physicians against the American springs. The original investigators of the American springs were the Indians. Their medicine men are considered mere quacks as compared to the scientific physicians of the European settlers.

The oldest history of Ballston Spa has been proved. The European physicians of New York had no therapeutic success in the gout of the governor. Indian medicine men of the Iroquois recommended the use of the mineral waters of Saratoga county and with success. The laymen, i.e. Indian treatment there posed as successfully superior to the academic medicine. Similar cases may have happened very often, but have not been recorded in history. The farmer laymen received some knowledge concerning the local mineral springs and delivered it down from generation to generation. This kind of American balneology survived below the covering surface of the recording sciences.

Even now if sick people no longer expect any more help from the regular physician, another layman persuades them to a trial of a domestic spring in an old shape of advice. That is felt as an offense to the profession and ethics of the

American physicians. Therefore the administered European spring became ethical, but the domestic American spring was quackery. But in some cases the real value can be exactly inverted. Especially in the home of sick people must the use of mineral waters be preferred to the use of domestic water.

An artificial mineral water never reaches the value of a natural one. The mutual arrangement of the atoms of the many elements present is different. The different electric conductivity shows the difference. These differences are of physical nature. It is understood that continued strong physical influences can change the physical condition. A natural mineral water is less active when it has been carried a few miles, than drunk directly from the spring. A long transportation over the ocean spoils every mineral water more or less. On this account American mineral waters are preferable for home use. But European mineral waters are more readily obtainable and cheaper in the large American cities than American ones.

For the construction of a useful American balneology, a complete collection of printed information is very important. Every little contribution approaches this completeness. Very important material may now be obtainable, but may be lost forever within a short time. For Saratoga, John M. Clarke states that the older notes of thrillings are incomplete, inaccessible or entirely lost. I learned myself how this happened. I inspired the artesian wells of Lower Bavary. I had collected notes concerning 150 such artesian wells in a small district of brackish Meißner deposit, which contained a marine sand stratum bearing water. I have published nothing of this collection and lost it later on changing my domicile. There I found many geological faults distant from 500 to 2,000 meters one from the other, with ascensions or descensions of the sand bed on the other side from 20 to 100 meters and more. It was verified by other stratigraphic statements and by the present or absent influence of water pressure of different wells. Some times two distant wells communicated.

326 East 58th Street.

Haemo-Lymph Nodes. Ed. Retterer, Soc. de Biol., Mch 18, states that the center of lymph nodes is a focus of cellular proliferation. In the young adult, iron is not indicated by the ferrocyanid test. But, as the tissue of the node develops, its cytoplasm tends to liquify and the nuclei which gain the periphery of the gland, enrich themselves with iron, detectable by this test. The iron seems to be available for the production of haemoglobin, the lymph node, like the spleen is both a magazine and an accumulator of iron.

**Report of a Case of Syphilis Cured by One Dose of Salvarsan
With Reinfection Two Years Later.**

CHAS. W. BETHUNE, M. D., Buffalo, N. Y.

L. P., bartender, was admitted to the Sisters' Hospital Dec. 1913, giving a history of syphilitic infection eight months previously, penile chancre, roseola, loose hair and positive Wassermann. This diagnosis having been made by a practitioner in an adjoining town. He later visited a quack who claimed to administer Neosalvarsan, but there is strong evidence to prove that sodium cacodylate was the drug administered.

The patient presented no visible signs of syphilis except a general adenitis. Dr. Bentz reported a three plus Wassermann.

0.60 Salvarsan was administered intravenously. The patient then left the hospital declining further treatment. He reported at my office one year later to be treated for gonorrhoea, but declined further treatment with Salvarsan, claiming that the Health Department had found his Wassermann negative.

May 9, 1916, he reported at my office with a chancre of the tonsil, adenitis and roseola, Wassermann two plus (Board of Health).

Dr. Grover Wende kindly confirmed my diagnosis of a recent infection of syphilis. The patient permitted me to administer two doses of 0.90 Neosalvarsan and then refused further treatment. The visible lesions disappearing in a couple of days.

Cases of reinfection of syphilis after Salvarsan treatment are frequently reported, but the first infection was either seen early or if old was thoroughly treated. In this case an infection of eight months duration was apparently cured by one dose of Salvarsan.

294 South Elmwood.

Military Deaf-Mutism From Commotion. L. Lortat-Jacob and J. B. Buvat, Soc. Med. des Hop., Feb. 11, report that this condition has been found in numerous cases unattached by aural lesion and they consider it hysteric. In 7 cases, the distance from the explosion was great enough to leave in doubt whether concussion was a factor at all. Six of these cases were cured by ipecac, in emetic dose. They do not decide whether the result depended on any direct reflex connection of the glosso-pharyngeal and the auditory nerves or whether it was entirely suggestive.

**Indefinite Pain, Its Cause as Viewed by the Dowd
Phosphatometer.***

DR. B. E. SMITH,

Surgeon N. Y. C. Lines; Health Commissioner,
Angola, N. Y.

Pain is defined as a local sensation of distress due to injury or disease; the expression of an abnormally severe impression on a sensory nerve, exclusive of nausea, feeling of distress, itching, etc., although it may be associated with any of these.

It is thus seen that nerves must be involved before pain is evidenced, and it is only where we find nerves that we find pain. Thus, it is possible to cut the hair, nails, cornea, and epithelium without pain, but in these we are not concerned.

Amplifying the cause of pain from that already stated, it is found to be due to injury, inflammation, pressure, disease, but above all, and the most important cause, is insufficient nourishment of the nerve centers. In other words, where nerves are hungry, as they cannot speak, they manifest their want of food by pain. This is easily and quickly proven in the condition known as neuritis where injury, pressure and disease can be eliminated; and which is possible in fully 90% of all cases; they quickly respond to nerve nourishment. The question now arises, how can we say the nerve cells are at fault, hungry, so to speak, and that the pain is due to the nerves calling for food?

It is true we are taught the nerve cells have a food; we know this food is lecithin, nuclein and phosphorus, but until the original articles of Dr. Dowd (N. Y. Med. Record 1908) nothing was known of any way of ascertaining whether these substances were present in normal quantities or not. One thing his teachings have brought clear to us; these substances are taken from the food we eat, not only in sufficient quantities to maintain the daily calls for energy, but an excess is taken which is stored for emergencies. That such a condition had been supposed, is evident from the writings of Prof. Shaw in his work, when speaking of neurasthenia, a condition that owes its cause in fully 90% of cases to nerve cell hunger. He says, "This inherited unstable state of the nervous system depends evidently upon some defect in the power of the neurones to assimilate and store up nutrition and force in sufficient quantity, and with sufficient rapidity to carry on fully and easily the work of life."

*Read at 8th Dist. Meeting N. Y. State Medical Society, Olean, N. Y.

As to whether nerve nourishment is present and being used by the system in normal amounts, we find easily and quickly ascertainable by estimation of the alkaline phosphates found in the urine. These represent the end products of lecithin, nuclein and phosphorus, occurring through a process of metabolism and will show the condition of the nervous system in exactly the same manner as does urea show muscular activity.

Of course, in pain accompanying injury, inflammation, irritation and the like, the cause is evident and need not be considered here, except in cases where it is indefinitely prolonged; here it may be found the phosphatometer may give most valuable information, and clearly show what to do for its relief. But it is the great majority of conditions where pain is present, and where no apparent cause is evident—fully 70%—that we can look to the nervous system as being at fault.

Barring neuritis and neuralgia, rheumatism is the cause given in most cases of indefinite pain. This is a sad error, and there is no doubt of the statement made some time ago by a prominent writer, "Eight cases out of ten treated as rheumatism, are not rheumatism at all, but nerve involvement; the majority are due to nerve-cell impoverishment, and the pain is due to the nerve crying for food."

Practically all pain of an indefinite nature being charged to rheumatism, and due to that old exploded bugaboo, uric acid excess, let me confine my further remarks to the pseudo-rheumatic opinion.

When physicians from small places, commonly called the country doctor, visits the cities and hears reputed authorities make remarks as heretofore noted, he thinks, thinks long and deeply; possibly going over in his mind, Mrs. So-and-So's trouble must have been of a nervous character, rather than rheumatism for which I treated her, otherwise she would have recovered in my hands, instead of Dr. Blank's. It was a thought of this kind I had, for many cases of pains and aches, which were diagnosticated as rheumatism had not responded as I thought they should.

It was some time before this happening that I had seen an article "The Neuroses," by Dr. Talbot, New York State Journal of Medicine, which among other things said, "Pain is always due to nerve involvement, and when there is not a well defined cause, as an injury, inflammation and the like, in the great majority of cases it is due to the nerves crying for food."

One thing can be stated as a fact: If digestion and assimilation are normal, the calls for energy not excessive, nerve nutrition will be furnished from the food we consume,

and in sufficient quantities to maintain all functions normally.

All physicians realize that the nerves cannot speak, neither can the baby; when it is irritated or hungry, it cried; when the former, they also cry, cry in the form of pains and aches.

One thing we are positively sure of, true rheumatism responds quickly to anti-rheumatic remedies; therefore, in any case of indefinite or prolonged pain, or pain that does not respond to rational medication within a reasonable time, it is well to think of the nervous system. But the day of thinking in medicine is fast drawing to a close, and conditions of the nervous system, especially that great class described as functional, accompanied by pains and aches, heretofore treated as rheumatism, will quickly be relieved when the true cause is ascertained.

If I am not mistaken, it was some seven or eight years ago that Dr. J. Henry Dowd, of Buffalo, gave to the medical profession what is known as the Phosphatic Index, or a test for the alkaline phosphates found in the urine, and which show the condition of the nervous system, whether nerve nutrition is present in normal quantities and is being used in the same manner.

Although the subject is free from many, if not all the technicalities that go with most tests we are given today; so simple that a medical student can use it, I feel that I have not the time or space, and these are among Dr. Dowd's remarks: "The nervous system has a fad which must be supplied in sufficient quantities at all times to furnish the necessary energy to keep this system, which furnishes every organ, controls every function of the human body, in as normal a condition as it is to have it." It is very evident that if nerve energy is used faster than it is supplied but one condition results: sooner or later there is a starvation process present and the nerves will make their wants known, possibly an irritability to care for the food consumed—dyspepsia—possibly by a general weakness, "constantly tired," but usually by pain; indefinite pains in the back, lumbago; in localized nerves, as neuritis, neuralgia and the like, and at times involving all parts of the body, erroneously diagnosed and treated as rheumatism.

The estimation of the alkaline phosphates is a simple matter by use of the Phosphatometer, a graduated tube showing normal, plus and minus; excessive destruction of nerve nutrition or a want of it.

And here it may be noted, as the nervous system is the most important part of our make-up, the vital spark of life—and a system that is influenced solely by impressions from any and every thought, word or deed; in the great majority

of cases, some authorities say at least 80%, it will be found the nerve cells are impoverished, that is, they are below par in nourishment.

It is unnecessary to describe the *modus operandi* for taking the Phosphatic Index, the subject is well known and most explicit instructions accompany each apparatus.

A word as to nerve food when it must be given artificially. Lecithin and nuclein are best obtained from raw eggs. As to phosphorus, of late the impression is fast gaining ground that this is one of the most valuable drugs we have, and time will prove such to be a fact; but when it is used, it must be used as such and not as a compound, if results are to be forthcoming. We, as physicians, have been deluded into thinking that we have obtained phosphorus from such compounds as hypo-glycerophosphates, phosphoric acid mixtures, and the like. Happily to say, with new light shed upon this subject through editorials and otherwise, it is clear to us that the above contain very little, if any, elementary phosphorus. This is easily proven with the mixture in the case report. If dropped in water it emits a bluish smoke, characteristic fumes and becomes decidedly luminous in the dark. (What a pleasure it would be if the physician could prove other mixtures contained what they purported to.)

The following case reports show with what rapidity results are obtained when the true cause is ascertained:

This lady had been ailing for nearly a year; four or five physicians having treated her condition as rheumatism; six weeks had been spent in a sanitarium for this malady, but no result. She was becoming worse every day, until the condition was most pitiable. All small joints were enlarged and very painful at times; the elbows were involved to such an extent that dressing herself was impossible without aid; she could not comb her hair, could scarcely attend to household duties; it was almost impossible to walk so badly were her feet swollen. She was very anemic, no appetite and obstinate constipation. Careful examination showed no pathological condition present; she was hysterical, crying several times daily. Careful examination of the urine showed no excess of uric acid, no evidence of Bright's, in fact nothing of an inflammatory nature was found. The index was 90% minus Sp. G. 1018, urine alkaline. This showed what is known as nerve-cell starvation, nerve nourishment was 90% below normal, pain was due to the nerves crying for food.

The following was ordered taken three times daily, about half an hour after meals: Comp. Phos. Tonic (Dowd) M 25, Fl. Ex. Valerian M. 15, Res. Podoph, gr. 1-10 in glycerine to one drachm, also two raw eggs a day. It will be unnecessary to go into detail further than to say: she commenced

to improve at once, at the end of a week the pain had vanished, in two weeks the swelling had entirely disappeared from the joints and she had gained 20 pounds and felt perfectly well.

A rather amusing, but welcome condition followed. She had been married three years, but never pregnant. Three months after commencing the phosphorus mixture, she reported a miss in her menstrual function. Examination showed pregnancy, all the crystals being stripped of their feathery ends; about eight months afterwards a boy was born. Is it not possible the ovaries were in a dormant condition, due to the lowered condition of the vital forces; improvement in her condition produced ovulation of an animated nature.

Another lady (aet 55) with almost similar symptoms, only not quite so severe, accompanied by dizziness, flushing of the face from which she had suffered for over a year, had been treated for rheumatism, neuritis and what not, with no result; she had even undergone the starvation method for high blood pressure; this registered 190 constantly. Examination showed interstitial nephritis with an index of 175% plus, solid. This case showing nerve cell irritation, excessive metabolism, bromide of gold and arsenic was used. In three weeks she was quite free of pain and dizziness; blood pressure was reduced to 160, she felt fairly good, living for two years in comparative comfort, when she suddenly died of apoplexy. It might be noted she only took the gold mixture for about five weeks.

THE FOLLOWING CONCLUSIONS MAY BE BRIEFLY STATED:

A. Fully 70% of indefinite pain is due to nerve cell involvement, irritation or want of nutrition; the Phosphatometer will quickly decide the true cause.

B. In fully 60% of these conditions it is due to a want of nutrition; the administration of nerve-cell food will be followed by rapid and permanent results.

C. About 10% are due to nerve-cell irritation and calls for sedatives; if condition is acute, bromides or valerian; if chronic, bromide of gold and arsenic.

D. In high blood pressure the Index is always plus, solid above N. P.; the Phosphatometer shows positively what treatment should be given. The happiest of results follow rational medication, in contradistinction to the heretofore starvation method used for this condition.

E. The Phosphatometer has brought to the door of the general practitioner the most simple, yet scientific method for the relief of obscure conditions of pain.

F. The writer can fully endorse the opinion of Dr. Chaun-

cey Pelton Smith, University of Pennsylvania, "Taking the phosphatic index should be a routine of all medical examinations—it gives more information, in obscure conditions, than any other measure we have."

Angola, N. Y.

Horse Chestnuts as Food. H. Serger, Chem. Zeit. gives the analysis as Starch 42%, saccharine matter 9%, proteid 5%, oil 2.5%, mineral matter 1.5%, water 40%. There are also a bitter principle and saponin-like glucosides. The cracked nuts, soaked in water, may be sufficiently freed from the latter to be available for live stock and extraction with 50% alcohol which, of course can be redistilled, allows the preparation of a flour making good bread for human beings. A tree 100 ft. high, yields about 3000-4000 nuts, weighing 40 kilos and yielding about 10 kilos of flour. While in peace, the labor of collecting and preparing the nuts renders the expense too great, in war, the horse chestnut may be worth utilizing as food, at least for live stock. (Note: So far as our observation goes, the horse chestnut is much more common in western Europe than in America. There is prepared a paste, used as a dessert, having the characteristic flavor and bearing on the packages a picture of a horse chestnut spray).

Absence of Ossification in an Adult. Pl. Mauclaire, Soc. Chir., Dec. 22, 1915, describes the case of a soldier under observation for a shrapnel wound of the perineum. The protrusion of both tibial tuberosities attracted attention and X-ray examination showed the osseous centers of the tuberosities distinctly separate from the shafts. The patient complained only of occasional pains in the knee.

Traumatic Luxation of Penis. Pl. Maucaire, Soc. Chir., Jan. 5, 1916, describes the case of a soldier who received, at the same time, a ball in the penis and one in the left testicle and a cut in the same region. Enormous tumefaction ensued, and the penis had come out of its sheath, while the left testicle was in process of enucleation. The sheath was cut at its base, on the lower portion of its circumference and the whole penis enucleated. An autoplasmic operation will be performed later.

Abscess of Liver—"Nostras." Muller, *ibid.*, reports a case in a man of 27, who had not been out of France. A large abscess of the left lobe was drained and recovery ensued. The origin is ascribed to an attack of appendicitis, with removal, 3 years previously.

With the 74th Regiment on the Texan Border.

H. H. GLOSSER, M. D., Buffalo.

Two weeks away from Buffalo. Can one have this same feeling when, roasting in the next world, he looks back longingly to that other existence before the physician signed the certificate?

Our trip down to this extreme point of southern Texas was, as the canny Scot said, "no so bad but that it might be worse no so good but that it might be better," the trip while somewhat slower than that of a letter, five days rather than three, was not more uncomfortable than one would expect in hot weather. After two nights in day coaches, sleepers were provided for the men, which, while providing room to stretch ones self comfortably, were as stuffy and ill ventilated as one could imagine.

Food was abundant and good; of the lack of variety one would soon be convinced should he mention corned beef and canned beans to any 74th man. Bread, canned tomatoes and hot coffee were also served, and on one occasion a man was seen with a can of peaches. Fresh water and ice were provided daily; while this was being done, the men detrained for exercise.

So we passed through Ohio, Indiana, Illinois, crossing the Mississippi about midnight of July 6th, and on through Missouri into Kansas. In a small town of this state we stopped for an hour and while each regaled himself in his own manner, several men sought a barber who politely but firmly closed his shop with the remark that no work was done after 8 p. m.—so the quality of patriotism varies. Such little incivilities seemed to mean much to the boys, while the slightest act of kindness brought corresponding cheer.

We experienced our first real warm weather in Oklahoma; an acquaintance once ran for governor of that state—congratulations can now be conscientiously offered on his defeat. Late one afternoon, we crossed the Red River, a dry expanse of red clay with the smallest possible stream of water; upon reaching the farther bank we found ourselves in Texas, seeing just what, according to Remington and to Collier's Magazine one would expect to see, vast tracts of grazing lands with here and there the dried skeleton of a beef critter, and what was then to us a novel sight, the cactus.

Forth Worth was reached about nightfall and for two hours the men were given such measure of freedom as they could secure while being taken through the town by their officers. It was in this town that the boys were cheered by being served with some slight refreshment by the Red Cross

Organization. All next day we travelled through Texas where one had the same feeling as on the ocean, of being a dot on the crest of infinity; the ranchers homes, simple and modest, dotted the landscape while very few tree clusters, one could not call them woods, could be seen at intervals. Always the cactus, the cattle, the irrigating ditches and the lonely homes stretched away to the horizon.

The day was Sunday and our good chaplain, John Ward, undertook the very arduous task of holding services through the train of fifteen coaches, so while we rolled over the Texan reaches, in every second car, with the aid of an impromptu choir, he held his service of scripture, song and short discourse, ending all by discussing cold lemonade in the commissary car.

About noon Houston City was reached, and the heat of Buffalo during Shriner week could have been as nothing compared to this; for two hours we walked the streets, seeking what diversion could be had in a dry city on a Sunday afternoon; after hunting in vain for a hotel with a barber shop, we decided that one might as well be converted as to live in Houston City; to the credit of the city it should be said that a post card store which the boys patronized did not charge more than the legal rate.

Entraining about the middle of the afternoon, we meandered down the line, for all the so-called fast trains were given right o'way while we sidetracked. At one stop the officials added a local freight to our twenty-five car train; all went well until a couple of violent bumps, due to trouble with the "air" and causing one officer to come into violent contact with his own heroic visage in a mirror, made the commanding officer, with the proper army language, order the extras cut out. Now we entered one of the most desolate countries imaginable; the view from the cupalo, the upstairs of the caboose, as we passed mile after mile of this wild wooded country, now and then crossing a "bayou," or creek, was more and more depressing, as the twilight advanced, until one could actually feel the yellow creeping down his back, when, at each bridge, a guard of U. S. regulars was seen to be on duty; nor were there lacking those who could tell stories of soldiers being treacherously slain by stealthy Mexicans. It was one thing to march down Main Street, between cheering crowds, another to be drawn by a powerful locomotive—alas too rapidly now—into a region where regulars were actually doing guard work. However, we did sleep that night; he was fortunate who first arose next morning and secured a bath in the last two quarts of water remaining in the Pullman. Lest someone should seize upon this point to

prove the inefficiency of the army, it is necessary to add that plenty of good water was secured within an hour.

And now as the train slowed down, surely we were in the tropics, for here were date and fan palms with the proper architectural setting for all. At the next stop we were held up until a passenger train could pass, so with many misgivings we alighted and approached the station, for surely those men with big spurs, high heeled boots and guns at their hips were Texan rangers! Yes, and there were some real Mexicans! But with these rangers on guard our regiment was safe; and taking the Chaplain as protector, and with a firm grip on the pen—for has not a wise man said that the pen is mightier than the sword—we approached the country store and bought writing paper from a real Mexican, who forgot international difficulties long enough to take our cash.

At last we ceased traveling south and turned west, for now we approached our destination, Pharr, where at 4 p. m. of July 10th we detrained, marching without ceremony to the camp site, where in an incredibly short time the little shelter tents for the regiment were pitched and the men messed, i. e. ate half their remaining ration.

Now as we contemplate the comfort of our larger tents, we enjoy thinking of that first night when we slept on the ground, three in a tent built for two. As long as possible one endured mosquitoes and the language of brother officers relative thereto, then opening bed roll set up cot with mosquito bar under the dome of the midnight sky, and was falling into a pleasant slumber when a gentle rain began, one so gentle that it was hard to determine to retire, yet harder to stay; back to the tent to find that the mosquitoes had reasoned to the same conclusion; more plain talk, the refuge of the cot was again sought and enjoyed until the cruel reveille at 5.30 spoiled a pleasant morning nap.

Now began a busy day, for shelter tents were taken down to be replaced by conical tents, each of which accommodated eight men. Tents for cook shacks, each consisting of a fly, were soon occupied by the busy cooks, and long before their savory meals were ready, the conical tents were pitched in beautifully regular rows, along the company streets which extended south at regular intervals from the main camp street; to the north the officers, commissary and hospital tents were located. Latrines and shower baths were located at the outer limits of the camp; it was in the possession of these latrines and shower baths that the 74th regiment was so much more fortunate than some others in the immediate vicinity, for, with the abundant supply of water and these frame structures, the men of the 74th performed privately

those duties and ablutions which others perforce did behind cheesecloth or in the open.

The first few days in camp were occupied in completing the work of erecting the tent city, for tents had to be ditched and floored, when one could secure the flooring; cook shacks must have stove foundations, refrigerators and incinerators, or brick stoves for evaporating waste water and burning solid refuse.

Now came a test of real service when the men, many of whom were taken from clerical positions, were put to work making and grading streets. It was in this trial that the men showed what was really in them, for under a tropical sun, which was rarely hidden by the merciful clouds, it was no work of light order to grade, with entrenching tools, a main street 500 feet long and fourteen company streets each averaging 200 feet in length.

The matter of feeding, always interesting, is especially so when considered in relation to large bodies of animals and men. As the child wishes to see the animals fed at the zoo, so does the interested inquirer wish to know the details of feeding en masse the soldier boy. The commissary department must see that train loads of provisions are supplied to each brigade, from which supplies the regimental commissary draws the exact amount according to the strength of the command. From the commissary each company, through its mess sergeant, draws, usually during the afternoon, one ration for each man, and woe betide that company whose cook spoils an unusual supply in the preparing. Mess call by bugle sounds at 6 a. m., 12 noon and 6 p. m., at which time the men, without the least hesitation, line up before the cook shack with meat pan, cup, knife, fork and spoon ready for first and second helping, for there is always an abundance, if the cook be a man of experience. Dishwashing disturbs the cook not at all, his part consisting of providing one boiler of hot suds, another of hot clear water, to which the men go after placing scraps of food in receptacles provided for that purpose. Garbage is carted away by enterprising Mexicans to be fed to hogs, many of which, no doubt, reach the stomachs of the men "through proper government channels."

For several weeks after arrival the men wore the woollen clothing provided at their home stations; this seemed a hardship to many people, yet it should be remembered that wool is not so uncomfortable for army men who are subject to torrential rains, and must sleep where the dews are very heavy. The lighter khaki clothing was soon provided, in which the men looked so neat it was a shame there were no white girls to see them.

To each regiment a medical corps, consisting of four medical officers, and a hospital corps, consisting of twenty enlisted men, is attached. To this medical department, styled sanitary troops, is intrusted not only the treating of the sick, but the far more important duty of keeping the camp sanitary, and the prevention of disease. To secure that end, it is the duty of the ranking medical officer, through his sanitary troops, to see that the water is potable and abundant, to provide suitable latrines built after the approved style, which must be kept free from flies by proper spraying with crude oil and carbon; to see that no tainted food is supplied and that the food eaten is properly cooked, the kitchens properly cleaned, refuse burned or carted away; he must vaccinate every man against smallpox and inject the typhoid serum. He must make a monthly examination for venereal disease, and be always on the lookout for contagious outbreaks. All this must be done in addition to treatment of the sick, which happily was very little in this camp. All the duties enumerated will be done well or ill, depending upon the ability of the ranking medical officer and his assistants. The medical officers work began at 6.20 a. m., when all who thought themselves sick reported and were passed upon, being returned to duty or placed in sick quarters, according to their real condition. If seriously ill, they were sent at once to the field hospital located three miles to the west. A report was immediately made to the commanding officer of the sick by companies, so that he knew very early in the day the exact strength of his command. At a later hour the sick reported for treatment at the infirmary tent.

There was little serious illness in the camp of the 74th regiment. The usual diarrhoeas due, no doubt, to change of water, food and climatic conditions, were rather more aggravated than was pleasant, causing the men to rise early in the morning, but there were but few serious cases. Venereal disease was surprisingly infrequent, the camps in this section being free from the usual camp followers. Catarrhal troubles were few and far between, and accidents also were rare and usually trivial.

A good word should here be said for the very excellent work done by the Y. M. C. A., which promptly upon the arrival of the troops had directors on the ground; within twelve days after the regiment arrived, the men were using the large building erected by the association, where paper, ink and envelopes were provided gratis, entertainments, both religious and secular were given, or men could sit and read quietly, there being provided a library for use in the building. Three directors were ready at all times to help the men

in every way possible. Should anyone be skeptical of the good work the Y. M. C. A. is doing in the army and navy, a careful study of these buildings and these men, called to sudden duty in southern Texas, would soon convince him of his error.

Renal Diabetes. D. Sclater Lewis and Herman O. Mosen-thal, Bull. Johns Hopkins Hosp., May, 1916. This condition consists in an abnormal permeability of the kidney to sugar, while the blood retains the normal level of 0.7-1.1 per mille. There is no loss of power to utilize carbohydrate and hyper-glycaemia is not found. Hence, an increase in carbohydrate does not materially affect the discharge of sugar in the urine, the general symptomatology of diabetes melitus is lacking, the general health remains good and no tendency has been noted to the development of true diabetes. The term renal diabetes is objectionable and it should be described as renal glycosuria. Very few cases have been reported and some consider that the condition has not been definitely established. Tachau's observations are cited as follows: 4 days, carbohydrate-free diet, no urinary glucose; 6 days, mixed diet, 158-250 grams of carbohydrate, none; 15 days, mixed diet, 124-412 grams of carbohydrate, 1.1-6 grams of urinary glucose a day; 3 days, mixed diet plus 100 grams dextrose, 0.6-4.2 grams urinary glucose a day. (Days not in chronologic order). Blood sugar, fasting, .85 and .86 per mille; after breakfast .61 per mille; 1 hour after 100 grams of dextrose, .76, 1.09, .82 per mille. The authors' case was observed from Sept. 29-30 to Oct. 25-6. Two days of light ward diet (contents not specified) showed a urinary output of 13.1 and 11.1 grams of sugar a day, blood 1.3 per mille (too high), standard not accurate). 5 days of starvation diet reduced the urinary sugar from 11.9 to 0.7 and 2.1 grams per day, two blood examinations showing 1.1 per mille of sugar (too high) but acetone and diacetic acid appeared later remaining till the 18th day when the carbohydrate had been gradually increased to 28 grams, acetone alone remaining till the 20th day when the carbohydrate had been increased to 126 grams. Meantime, the urinary sugar had increased from 0 to 23 grams, several blood examinations, considered accurate being .9 per mille. For the remainder of the period of observation, the carbohydrate varied from 270 to 60, including glucose with meals, the urine remained free from acetone and diacetic acid but the urinary sugar varied from 11.5 to 30 grams a day, the blood on several examinations showing .9 and .8 per mille of sugar.

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“Doing Nicely”

The Medical Economist, August, tells of a man who telephoned daily to inquire of a certain hospital, about the progress of his daughter, who had infantile paralysis. He received the above reply or some equivalent, each time. Shortly after the last inquiry, he received a notification that his daughter was dying—and at an entirely different hospital.

If our telephone is ever suddenly discontinued, those who try to reach us may conclude with reasonable probability, that some sweet voiced nurse has told us that a patient—and we naturally do not inquire when we have no proper interest in the case—was “doing nicely,” and that the company has removed our instrument because of our remarks. Up to date, we have succeeded in keeping within the bounds of language allowed but we cannot answer for the future. Even the laity are getting to the point where they realize just what “doing nicely” means and those who do not, are very apt to become rude and troublesome when they realize that the speaker or the authorities that govern her reply, have not the slightest idea of giving accurate information about a case or of identifying it in any way. And they may become still more rude and troublesome when some such information as the Medical Economist mentions, falsifies what they considered an accurate and consoling bulletin of the patient’s progress.

It is both the right and the duty of a hospital to guard professional secrets. Reasonable care should be taken to identify a physician or relative or other representative of a

patient. Mutual convenience renders it desirable that this care should not be so thorough as to eliminate the telephone entirely for the purpose of securing information of a patient's progress. Common sense dictates that such information should be somewhat more technical in replying to a physician than to a member of the laity. But, one of the courses should be followed: either information should be refused, or it should be given in good faith and accurately.

Experiences of the Summer.

This editorial may prove to be the most valuable one presented but it is not worth reading unless those who read it will contribute their own experience. It seems best to bring up this subject while it is still fresh in the minds of the profession. Whatever replies it elicits, will be assembled, with due credit and published at the beginning of the next summer.

It is stated that rag weed is responsible for 85% of autumnal hay fever, golden rod for practically none but that any plant with an abundance of fine, light, anemophoric pollen may cause the disease. Rose fever seems to be uncommon although many persons imagine they are susceptible to it. Is it analogous to rag weed fever or merely anaphylaxis from volatile oil? Sometimes symptoms resembling mild hay fever arise from dust and some consider dust that includes manure toxic from contained bacteria. Does any kind of hay or grass, by pollen or otherwise, produce hay fever? Why is the summer cold so obstinate? Is it simply a catarrhal inflammation, accepting either the cold or the bacterial theory, or does it partake of the nature of pollen fever? Have you observed cases of asthma excited by feathers, cats, etc., or that illustrate the old idea that two asthmatics or hay fever sufferers might exchange locations and both be relieved? To what extent are bronchial conditions, inflammatory or spasmodic to which a person is subject at any time, confused with hay fever? Have you noted beneficial results from pollen extracts and, if so, to what degree must specific pollens be used?

Have you observed serious cases of ophiophobia or interesting ones of ophiophilia?—or analogous phobias and philias regarding spiders, toads, worms, etc.? We are rather sceptic regarding the existence of a true zoophilia amounting to a perverted psychic condition. For instance, one who really has no special fondness for dogs and cats may hold one on his lap and pet it. A person who is entirely free from ophiophobia might appear a perverted ophiophile to the many

persons who have pronounced ophiophobia. Yet we have observed a case of so-called ophiophilia associated with well marked sexual perversion, in a woman.

Reports of bites by poisonous snakes are of course of value, especially if confirming or opposing belief in definite therapeutic measures, as the now almost abandoned faith in alcohol pushed to excess, in permanganate treatment, cauterization, suction of wound, specific serums, etc. There has been some chemic confirmation of the old notion of toxicity of the skin of toads. Reports are desired bearing on this question and as to the toxicity of other animals, especially spiders and insects, and particularly with reference to laryngeal, ocular and other specially dangerous locations of stings. In our camp experience, we have found nothing superior to clean mud as an application to any form of insect bite on the skin.

We are growing somewhat sceptic concerning the commonness of susceptibility to *rhus toxicodendron*. A surprising number of persons do not even know the plant and the lower animals run through it frequently. It would seem that if the toxicity of this plant is anywhere near so great as is reputed, poisoning would be extremely common. The writer has always been immune and most persons seem to be. We have seen slight urticaria due to contact, relieved simply by washing in lake water at the time and a few other more serious cases—though none of high grade—relieved by lead washes or almost any other soothing lotion. As to the effect of volatile substances or pollen blown by the wind and as to annual recurrences without subsequent direct exposure, we are more than sceptic.

We have seen a few serious cases of sunburn, although serious rather from secondary infection than from the direct results of the dermatitis. It should not be forgotten that, opposed to the great majority who believe in heliotherapy, there are a few who regard the sun's direct rays as always harmful, producing various trophic lesions. We used heliotherapy in a case of intestinal tuberculosis in 1904, the patient being still alive and in fair health, with no present indication of tuberculosis. But even a minority opinion is worth investigating.

There are quite a number of indigenous or introduced poisonous plants. With the exception of *rhus toxicodendron* and *rhus venenata*, we believe that none are likely to cause serious danger except to small children eating the berries, or chewing other parts of the plants. Theoretically, the green parts of potato and egg plant and most parts of the other solanaceae, including the deadly night shade, are poisonous. The mints are toxic in large dose and the umbelliferae in less

dose. Some persons are even afraid of parsley and parsnips, carrots, etc. We have noted poisoning from tincture of larkspur used to kill lice in the hair, temporary syncope and deafness from a teaspoonful of peppermint oil, and, of course, poisoning from the vegetable abortifacients. Reports of plant poisoning from accidental eating of the green parts, excluding pharmacologic preparations, should be carefully reported.

There is no question but that swimming, which seems to be gaining in popularity, has a hygienic value exceeding its inevitable risk, not to mention its potential value in preserving life in deep water—which is not very great in a storm, or against prolonged immersion in cold water as the ocean, or in accidents in which large numbers of persons are involved. Personally, we have not noticed ill effects from entering the water when heated nor soon after meals. As to the contraindications afforded by menstruation and advanced pregnancy, we have nothing to offer. It has seemed to us that crowded bathing places, even on the shores of large natural bodies of water, present a considerable risk of infection and that even without this factor, prolonged and continued bathing causes susceptibility to ordinary pyogens, so that boils or carbuncles tend to develop or even more serious pyogenic processes ultimately from other predisposing causes. We feel strongly that everyone should leave the water as soon as chilliness becomes a marked subjective symptom and without waiting for blueness of the finger nails and pallor of the face to develop. Yet the numerous instances of persons who violate this rule with apparent impunity must be considered.

We have reiterated warnings against the unsanitary conditions of camps and summer resorts, especially with reference to typhoid for many years. With the present attention given this matter by boards of health and hygienists and the definite recognition given to typhoid as a vacational disease, it is unnecessary to dwell on this subject, except to say that every physician whose sons or patients are contemplating a camping trip, should instruct them in the rudiments of latrine construction, as practiced by armies, for varying periods of encampment. Yet, from the psychologic standpoint, it is worth while to remark on the very general human tendency to burn its sanitary bridges behind it. Even a cat has by instinct the decency to bury its excrement though, when extremely domesticated, like the dog, this instinct may have atrophied into a few symbolic scratches at the dirt. Man, having ascended still farther, uses by choice, a traveled path or a temptingly shady nook which the next comer would use for a resting place. Practically every out-

ing place visited by any large number of persons becomes so foul in the course of a week of dry weather that it is offensive to the sense of smell. Rains wash away the immediate gross contamination into streams and lakes where the after effects may or may not be dangerous, according to the nature of intestinal flora and the use of the water for drinking. Only the winter's rest from such defilement renders it possible for cities to have an outlet into the country for the mass of their population that would not be more dangerous than confinement within the city limits. The same selfish tendency is noted with regard to picnic garbage, waste paper and glass on the beaches. A party of joy riders goes so far as to smash bottle behind their own tires and the average automobilist, delayed by a puncture, leaves the nail in the road for the next man. On the whole, it is possible to argue that the psychology of the general subject exceeds in importance the direct sanitary considerations.

Thunder and Lightning.

In the registration area, lightning kills about 1 person per 200,000 population, annually or causes approximately one in every 3000 deaths. Most human beings and many lower animals are afraid of thunder and lightning, the fear being disproportionate to the actual danger. It appears, indeed, that we are dealing with a phobia rather than an actual fear in most cases. It is scarcely necessary to state that the actual danger is from lightning and not from the accompanying thunder yet, so far as we can judge, it is the latter which mainly produces the phobia, whether in human beings or animals. This is especially true of intelligent persons who realize the very slight proportionate danger from lightning and know, as a matter of scientific training that all danger is past, from the particular discharge of electricity, by an appreciable interval when they hear the thunder. Brontophobia is, therefore, a strictly correct expression. Numerous cases of marked hysteria occur during thunder storms and, so far as may be judged from the infrequent opportunities of comparison, the cases are much fewer from witnessing heat lightning or the rare instances in which "balls of fire" enter buildings without detonations.

If we recall the general rule that phobias originate early in human history or even antedate the arrival of man on the globe, it is not so strange that thunder rather than lightning should cause the fear. Visual sensations are almost constantly received except during sleep and those of unusual degree are less uncommon than analogous stimulation of the other

special senses. Moreover, a sudden loud noise, usually does mean danger, at least potentially.

Routes of Travel.

With special reference to poliomyelitis, we wish to call attention to discrepant statements regarding distribution of disease by routes of travel. Most of the statements in the recent literature, speak of poliomyelitis as following routes of travel. Some of the older ones state the contrary. Practically any hamlet is on a route of travel. When it said that a disease follows a route of travel, the elements of time, progressive, not necessarily straight following of a thoroughfare of some kind, bulk of travel, should by implication be significant. The superstition of the Wandering Jew in regard to cholera, is a classic example. When we find a small, scattered village in Steuben Co., off all main routes of travel, having the same number of cases of poliomyelitis as Buffalo, and more than many cities of large size, when we note that Philadelphia and other cities to which rival roads from New York runs trains "every hour on the hour," have had comparatively few cases, when we consider the absence of cases in Vermont and the fact that only three have developed in New Hampshire and 14 in Maine, all states largely sought by New Yorkers for vacations; when we reflect that the first autochthonous Buffalo case occurred after an imported, Brooklyn case, but without proximity and too soon for this source of infection, we feel that Routes of Travel are distinctly not a factor in the spread of this disease.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

National Parks Portfolio. Issued by the Dept. of the Interior, Washington, D. C.

This consists of fasciculi of views of 9 of the great national parks. We advise our readers to apply for this collection of views. It is estimated that, last year, on account of the closing of Europe to tourists, \$100,000,000 usually spent in

Europe, was put into circulation in the U. S. for quite as profitable recreation.

Manual of Vital Function Testing Methods and their Interpretation. Wilfred M. Barton, M. D., Washington. Published by Richard G. Badger, Boston. 255 pages, \$1.50.

While, to some degree, tests bearing this name have been inserted in works on clinical diagnosis, never before have they been assembled and subjected to critical analysis in the aggregate. We make no attempt to define accurately this group of tests and to distinguish them from diagnostic tests in the aggregate, since the author has not done so. However the term is generally understood. The liver is discussed in regard to its glycobenetic, urea-forming, antitoxic, haemopoietic and exocrinous or biliary function—about 50 pages. Over 80 pages are devoted to the kidney and 30 to the pancreas. 35 pages are devoted to such cardiac and pulse tests as may be considered to represent functional power. Most of the rest of the book is devoted to the ductless glands. While the author makes no claim of original work, his previous experience in pharmacology and his more recent attention to clinical medicine in Georgetown University, have afforded opportunities for reviewing the subject critically and not merely as a compiler. It is noteworthy that this phase of diagnosis is very largely American, and that it is a topic in which science and practical application are joined to an unusual degree. The book is one of the rare instances in which there is almost nothing trite and in which one does not have to read many pages to get something unfamiliar and yet of practical value. Since the appearance of the first edition of Sicon's *Clinical Diagnosis*, we do not recall a book which is so radically novel and which, at the same time, fills a need of so large a part of the profession. It would be unjust to imply that equally original works, from the standpoint of authorship, have not appeared but, to the best of our recollection, they have either been monographs on some particular disease or method, or have dealt with subjects that are scarcely out of the theoretic stage, or have been limited in scope to certain specialties. Nor do we speak with derogation of systematic treatises which, in bringing a subject up to date, necessarily include much that is already familiar.

Map of the State of N. Y. Showing Improved Highways and Many Points of Historic Interest. Issued by the N. Y. State Commission of Highways, May 1, 1916, Edwin Duffey Commissioner, I. J. Morris, Sec'y.

Of the approximately 80,000 miles of roads, outside of cities and incorporated villages, 6,000 state and county highways have been improved by brick, cement, macadam or similar surfacing and 1,300 miles additional are under construction (not 13,000 as the disgruntled tourist might assume to be meant) besides 4,000 miles of road improved mainly by scraping and graveling by towns and counties. 6,500 miles of unimproved but commonly used and generally fairly good highways are also shown. This map is a boon to automobilists, among whom physicians are relatively if not actually, more numerous than members of any other business or profession except that of president (as of the country, railroads, banks and corporations).

There are approximately 250,000 automobiles licensed in the state, not to mention motor cycles. License fees, therefore, amount to nearly \$2,000,000 a year. We understand that improved roads average something over \$10,000 a mile, indicating that they are by no means paid for by owners of automobiles, as some of this class have imagined.

In no sense as a criticism of the Commission, but rather of the general subject, which is of importance not merely to tourists but to those using the roads for business purposes for all kinds of travel and commerce, and to the people as a whole both industrially and as a vital point in military preparedness, the following comment may be pardonable. The State is, approximately 300 miles wide and 100-150 miles from north to south, disregarding Long Island and the mountainous and scantily populated north-eastern extension. At first thought, 10,000 miles of improved highway would seem ample to provide for mutual accessibility of all important centers of population. Curiously enough, there is only one trunk route for the whole state, following approximately the old stage road to Albany and thence to New York. From this road, at Avon, a very sinuous highway reaches the principal cities of the southern tier. Nearly every city has a number of local roads available for a day's pleasure ride and there are a great many short connections between various pairs of cities or villages. It is true that, from almost any point to any other that would be naturally selected as a destination, there is a good deal of good road but the missing links, though often short in length are often sufficient in depth of mud or height of hills to be prohibitive except under favorable conditions. These conditions are satisfied too briefly for either business purposes or even the pleasure riding of a busy man. In the past, the demand for impartiality and the need of affording object lessons as to what a highway might become, required the pretty even distribution of road improvement but the time has arrived when even the

interests of any particular locality as well as of the State as a whole, require concentration on missing links to secure trunk highways available at all times except those when the snow is deep—and when this has been accomplished, undoubtedly there will be a demand for snow plows.

We have already expressed the opinion that the macadam road is too short lived to be economic from the standpoint of taxation, either general or by license and that the sharp material and oil used in its construction and maintenance impose an indirect tax on rubber tired vehicles equal to the license tax. Thus, with some special exceptions, no further macadam roads should be laid, and those already constructed should be replaced with brick or cement as they wear out. For the immediate future, that is the next two or three years, we would advocate the building of brick or cement roads simply to connect short breaks in possible trunk highways. Two or three hundred miles of such construction would make nearly the whole 6,000 miles of state and county highways available for through travel in almost any direction, and would lengthen the radius of convenient travel from any average center, four or five times at least. Any additional funds, should, we believe, be devoted not to the construction of ideal roads but to rendering several times as much mileage of natural highways available for ordinary summer travel, by ordinary road work, consisting in grading dangerous hills, straightening out dangerous curves, scraping rough roads and filling in soft places with natural gravel, sand and shale.

Medical Clinics of Chicago. July, 1916, Vol. 2, No. 1. (W. B. Saunders Co., Phila., bi-monthly, \$8 per year).

We are glad to note that James T. Case emphasizes the special value of fluoroscopy in the examination of the stomach. There is so much good matter that it is impossible to do justice to all the authors in a review.

The very clear and practical discussion of the anatomy and physiology of the spinal cord and its containers is aided by the large size of the pages, which allows illustrations of adequate size. Flatau's table of muscles is quoted with some modifications, giving the name of the muscles properly classified into regional groups, the spinal segment governing them and the functions. Bing's table of centers of skin and tendon reflexes is also quoted. Considerable space is devoted to general diagnostic methods, including the X-ray whose results are peculiarly effective in spina bifida. The various operations on the cord and its surrounding structures are described and depicted systematically. Indeed, while the author expresses conservative opinions as to operation in

many instances, he does not attempt to cover medical and electric therapeutics and refers only briefly to electric diagnostic tests.

Physics and Chemistry for Nurses. Amy Elizabeth Pope, San Francisco, G. P. Putnam's Sons, New York (Knickerbocker Press), 444 pages, illustrated. \$1.75.

This well known writer has shown singular skill in condensing various parts of the medical curriculum to meet the requirements of the trained nurse. While her critics, from different standpoints may not always agree as to the wisdom of teaching so much of the technical side of medicine to nurses or, on the other hand, may feel that in certain details or generally, any departure from the purely practical necessity of a training course should go to the limit of thoroughness, we doubt whether any of these critics could undertake the task with better results. Whatever may be said as to restricting the training course to practical matters, her text books are certainly well adapted to the educated and ambitious trained nurse and to the laity who wish to obtain a fairly complete and intelligent understanding of medical sciences. We frankly admit, also, a personal appreciation of her books for a cursory review of subjects that have not been studied formally for a long time. In this book, the author has included a number of very practical applications of chemistry, as dyeing, food compositions, digestion, etc.

A Manual of Otology. For Students and Practitioners. By Charles Edwin Perkins, M. D., F. A. C. S., Professor of Clinical Otology in New York University and Bellevue Hospital Medical College; Associate Aural Surgeon to St. Luke's Hospital; Assistant Aural Surgeon, New York Eye and Ear Infirmary; Fellow American Otological Society, New York Otological Society, New York Academy of Medicine, etc. 12mo, 445 pages, with 120 engravings. Cloth, \$3.00, net.

This is an excellent book, intermediate in size between the condensed and the very elaborate works. The author writes from long personal experience with the subject and has devoted especial attention to the internal ear and to the vexed question of the chords tympani, on which he offers a large amount of original research.

Les Typhoides Intriquées. Dr. Arthur Grimberg, published by Imprimerie de la Cour d'Appel, Paris. Paper cover, 64 pages.

The author has studied 160 cases from various Paris hospitals, working in the laboratory of Dr. A. Chantemesse. From the clinical side, special attention is given to false recurrences and recrudescences while the laboratory work deals with agglutinins and blood cultures, involving many technical improvements of an original nature.

Treatment of Infantile Paralysis, Robert W. Lovett, Boston. P. Blakiston's Son & Co., Philadelphia. 163 pages, 113 illustrations, \$1.75.

It should be understood that this work does not attempt to discuss the treatment of the acute infection but rather speaks sceptically of it and limits scope to the treatment of the ensuing paralyses. Electricity, in its various forms, is dismissed very courteously after a brief synopsis. Exercises, prosthetic appliances, operative measures are discussed in detail and, both in the introductory chapters and as occasion arises in connection with various lesions, diagnostic methods are fully treated.

Studies in Immunization Against Tuberculosis. Drs. Karl and Silvio von Ruck, Asheville, N. C. Paul B. Hoeber, N. Y. 439 pages, \$4.

This work is divided into three parts, Theoretic Considerations, Practical Immunization and Experimental Studies. The name of von Ruck has long been associated with tuberculosis and with a favorable view toward specific treatment. The very thoroughness of the studies included in this book and the conservatism of the authors, makes it difficult to review in few words. Immunization, moreover, is employed both prophylactically and therapeutically, by various techniques and even involving very different principles of preparation of what may generally be termed vaccine. The book is, therefore, one for study of a broad subject and by no means a statistic argument by reports of cures, for a given method of therapeutics. We commend it to all real students of the disease but those looking merely for an easy routine treatment with assurance of positive results will meet with disappointment.

Diseases of Occupation and Vocational Hygiene. Edited by Geo. M. Kober, M. D., LL. D., Washington and Wm. C. Hanson, M. D., Belmont, Mass. 29 contributors. P. Blakiston's Son & Co., Philadelphia. 918 pages, illustrated, \$8.

Part 1, deals with metallic and other poisons, infections

especially due to occupation, as anthrax and certain infections and infestations depending on occupation as compelling residence in particular climates, dust, lesions of the cardiovascular-renal apparatus, fatigue and occupational neuroses, conditions of the mouth, nose, throat, eye, ear, and skin; cancer especially with reference to X-rays and radium; electric injuries and shock.

Part 2 views the general subject from the standpoint of etiology and prophylaxis and includes a detailed discussion of special hygienic measures required for a large number of occupations.

Part 3 covers the relation of clinics, statistics, governmental study and legislation to the prevention of occupational diseases and may be considered as mainly sociologic.

An index of authors, 16 pages, gives an idea of the thoroughness of the study for the preparation of this book and the general index not only facilitates reference but suggests a use of the book for more general purposes not indicated by the title. The work, as a whole, is monumental, of wide interest, appalling in its showing of waste of life, life-saving in its ultimate influence.

Fables. E. P. Anschutz, M. D., published by the Bulletin of the Sons of the Academy. 56 pages, paper cover, 25 cents.

This is a collection of homely truths in fable form, very interesting and none the less instructive.

Practice of Obstetrics, J. Clifton Edgar, N. Y., published by P. Blakiston's Sons & Co., Philadelphia, 5th revised edition, 22d thousand, 1006 pages, 1316 illustrations, 5 plates and 34 figures in color, \$6.00.

This well known work is, by its mere size and abundant illustration, obviously a cyclopaedic monograph. While lucidly written, the illustrations render it almost clinical in presentation of problems and their solution. The summary, preceding each principal division of the work adds to its didactic value by placing before the reader a definite conception of the main subdivisions thus, first giving a bird's-eye view and then bringing him nearer for a detailed consideration of the topics included.

The Practical Medicine Series, The Year Book Publishers, 327 S. La Salle St., Chicago. Under general editorial charge of Chas. L. Mix, A. M., M. D., 10 volumes a year, \$10.

Vol. 4, Series of 1916, Gynaecology, edited by Emilius C.

Dudley, A. M., M. D., and Herbert M. Stone, M. D. 232 pages, \$1.35 separately.

Vol. 5, Series of 1916, Paediatrics, edited by I. A. Abt, M. D., and A. Levinson, M. D.; Orthopaedic Surgery, edited by John Ridlon, A. M., M. D., and Chas. A. Parker, M. D., 231 pages, \$1.35.

This series is a valuable review of current literature, the offering of each volume separately being an advantage to those whose limitation of interests might prevent subscription to the entire series.

Progressive Medicine. Edited by H. A. Hare, M. D., and L. F. Appleman, M. D., Philadelphia. Lea & Febiger. Quarterly, paper bound, \$6 per annum.

Vol. 19, No. 3, Sept. 1916, 394 pages, is devoted to Diseases of the Thorax, by Wm. Ewart; Dermatology and Syphilis by Wm. S. Gottheil; Obstetrics by E. P. Davis; and Diseases of the Nervous System by Wm. G. Spiller. The volume is well indexed.

TOPICS OF PUBLIC INTEREST

Statistics of Periodicals. The Bureau of the Census issues the following statements, for the year 1914. Dailies, 2580 (2600 in 1909), aggregate circulation 28 million; Sunday papers 570 (520 in 1909), 16 millions; Tri-weeklies 84 (73 in 1909), 549 thousand. Semi-weeklies 583 (635 in 1909), 21½ millions; Weeklies 15,166 (15,097 in 1909), 50 millions; Monthlies 2,820 (2,491 in 1909), 79 millions; Quarterlies 500 (361 in 1909), 18 millions; All others 442 (364 in 1909), nine millions. The total number increased only from 22,141 in 1909 to 22,745 in 1909 but the aggregate circulation increased about 25%. The gross incomes of newspapers consisted of 99½ million dollars from subscriptions and sales and of 184 millions from advertising. For other periodicals, the gross incomes were 64 and 72 million dollars respectively. The reading public should appreciate that they pay less than half—and for most periodicals aside from the popular monthly magazines—only about a third of the cost of their reading matter. The strength and quality of periodicals in general, depends upon advertising support and this, in turn, depends upon the attention which readers pay to the advertisements. The only serious competitors against legitimate periodical advertising are the circular and the sign board.—both nuisances to the busy public.

Bringing the Childless Home and the Homeless Child Together. The State Charities Aid Assn. since 1898, has found homes for 2,366 children of whom 839 have been legally adopted. Supervision is continued to assure proper home surroundings and against "misfits" but 76% of the children remained in the homes first selected. This is a worthy philanthropy for which financial support is needed. The element of supervision is more important than might appear. Some years ago, we happened to observe a case in which the laws of a certain state practically established a system of peonage. Under certain restrictions, any family could secure a child servant, to be set free at a given age with a sum of \$100. In another instance, two sisters were adopted by well-to-do families from an orphan asylum. One of the children wished to trace her real parents but the asylum either could not or would not give information and, as it developed later, refused information to the parents also, who had placed the children in the institution because of temporary financial reverses and who subsequently became quite prosperous. Largely through the determined efforts of the little girl, the family was ultimately reunited.

Teutonic War Losses. British compilations of Teutonic reports give the following totals for the first 25 months of war, up to Sept. 1, 1916, exclusive of naval and colonial forces: Killed 832,000; Prisoners 165,000; Missing 234,000; Wounded 2,144,000; Total 3,375,000. Newspaper statistics for the first ten months of the war placed the losses at more than double the totals for 25 months. Over two million dead German, Austrian and Turkish soldiers have been restored to life, and considerably over a million prisoners have escaped, if we are to reconcile the two sets of statistics. We have previously emphasized the fact that even this terrible war will not in any sense depopulate the countries of Europe, even if protracted.

Telephone Merger. Up to date the telephone situation seems to be about as follows: The Federal Co. has about 15,000 subscribers, about 9,000 of whom have Bell connection also. It is losing at the rate of about \$400,000 a year, to compensate for which loss, about 12,000 additional subscribers would be required, not to mention the proportionately small but in the aggregate considerable expense due to the additional equipment and service, much of the equipment in instruments, wiring, etc., being already on hand. The Bell Co. has about 48,000 subscribers and with the 6,000 exclusive Federal subscribers, would have a total of 54,000. It charges about 50% more for its service than the Federal already but

says it cannot survive the loss of an additional gain of 6,000 subscribers without further increase of rates to about 200% of the Federal Standard. It is proposed to put the matter of a merger in the form of a popular referendum. The average subscriber does not care whether the companies merge or whether one goes out of business. He does not care much whether connections are made by dial or by an operator. In fact, in our experience, the majority of persons would rather use two hours of time in telling someone else to do something than half an hour in doing it themselves, and would not object to the greater chance of error in the former method. The main problem is the matter of expense, aggregate and in relation to service, remembering that a la carte charges always tend to increase cost proportionate to the amount of a commodity or service received but, by enforcing economy, to reduce consumption so that the total cost is not proportionately increased. The medical profession, like many other kinds of business, must consider not only its expense for outgoing messages but the even greater economic loss of anything that discourages free use of telephones. The Postal Telegraph Co., obviously something more than an interested by-stander, cites the following rates: Buffalo under competitive service, \$84.; under monopoly, Baltimore \$174; San Francisco \$171; Washington \$156; Cincinnati \$87; Denver \$96; New Orleans \$102. These cities correspond fairly well in population and area with Buffalo, especially if we consider the range of population growth of Buffalo corresponding to the existence of the dual system and the probable growth of Buffalo in the immediate future. They show two things: that a monopoly tends strongly toward an increase of rates but that such an increase is not necessary.

We ask our readers to exercise their influence and, if given an opportunity, their vote in exactly the same way that they would if we announced that, having absorbed another journal and being compelled to print another thousand copies of each issue, we should be compelled to increase our subscription rate to 150 or 200% of the present.

Conservation of Paper. The increased cost of paper is a serious economic problem to all branches of the printing and publishing business and, indirectly and directly, to the entire community. Under present conditions, use of paper means destruction of forests which is of still greater importance. We ask, therefore, whether you personally find the increased cost of paper appreciable or not, that you use all possible economy in this regard and, especially that you render used paper available for re-use. In Buffalo, it is not necessary to sell paper to accomplish the ultimate economic end, though

we know of a very worthy minor charity that has been almost entirely supported by donations of old magazines. The city collections of waste paper, etc., largely support the work of disposing of rubbish.

\$125,000 is the estimate of the estate of the late Dr. John B. Murphy.

Indian Centenarian. A Cayuse Indian, Ayoushakatsagom, died Aug. 23 at Pendleton, Ore. aged 120.

Sane Fourth of July. No tetanus and no blinding were reported this year, the total casualties being 850 with 30 deaths.

Priority of Women Physicians. Dr. A. Jacobi (Med. Rev. of Revs., Sept., states that the first woman admitted to the New York State County Medical Society was Dr. Mary E. Greene, Feb. 13, 1871; 2d, Dr. Emily Blackwell, May 5; 3d, Dr. Celestia Loring, Sept. 4. A woman was previously admitted by a Kansas Society. (Note: An interesting historic review of this subject would be welcome).

Dental Preparedness. Dr. Wallace Seccombe of Toronto gave a lecture at the Hotel Statler, Buffalo, Sept. 12, on The Work of the Canadian Army Dental Corps. The meeting was under the auspices of the Buffalo Branch of the Preparedness League of American Dentists.

David's Disease. John Ridlon of Chicago, (Boston M. & S. Jour. Sept. 7) shows that Jean Pierre David, described caries of the vertebrae in a prize essay published the year before Percival Pott wrote a paper on palsy of the lower limbs. David's first case dates back to 1766. The further criticism is made that Pott's original paper did not recognize the relation of palsy of the lower limbs to vertebral disease, that at no time did he have a clear conception of the nature of what is commonly termed Pott's disease, that his statements as to clinical symptoms are inaccurate and his therapeutics entirely worthless. On the other hand, David clearly recognized that paralysis was due to lesions of the vertebrae, gave a good clinical description of what we call Pott's disease and recognized the pathologic condition as well as possible in the absence of bacteriologic knowledge.

The University of Buffalo inaugurated its 71st session by a joint meeting of all departments in Townsend Hall, Sept. 25. The newly established Arts Dept. will have about 325 students. Many of these are pre-medical students, the

Medical Dept. already requiring one year of college study and after next year two years, prior to matriculation.

Infantile Paralysis. Buffalo has had, up to Sept. 12 reports, eight cases and two deaths. Last summer there were 30 cases. So far as we can judge, the principal incidence in western N. Y. is in the southern tier of counties, where the proportionate number of cases is very high. In spite of optimistic rumors and claims, no progress has been made recently in regard to etiology and treatment.

Prolonged Fast. Dr. H. G. Huffman, an oculist and advocate of fasting as a nature cure of Youngstown, O. (not listed in Polk) died Sept. 7 in a hospital of that city. Two years ago, he fasted 47 days in camp, after having been told that he had only a short time to live and returned to a fair degree of health. Last year, he fasted 30 days. His present fast began June 30 in an open air camp. At the end of this period he attempted to eat but was unable to do so and died after 69 days altogether.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

We have received voluminous reports in galley, from several national societies. Owing to the fact that those especially interested will have access to the papers when published in full in official organs or bound volumes, and that our space is none too great for the local matter more strictly in our province, it has been decided not to publish these reports, valuable as they are.

The Association for the Study of the Internal Secretions was organized in Detroit during the meeting of the A. M. A. 26 were present at the organization meeting. Nearly 300 applications have been received for charter membership. The annual dues are \$5.00, the first period being extended through 1917. Meetings will be held with the A. M. A. The Organization Committee consists of L. F. Barker, Baltimore; Jud-

son Daland, Philadelphia; L. R. De Buys, New Orleans; Emil Goetsch, Baltimore; Henry R. Harrower, Los Angeles; Geo. H. Hoxis, Kansas City; John B. Potts, Omaha. The Treasurer is W. W. Duke, Waldheim Bdg., Kansas City, Mo. A small journal entitled the Link between the Members of the A. S. I. S. has begun issue with Sept. 1916, to be continued monthly. Price 50 cents a year to non-members, included in dues for members.

The Eighth District Branch of the Medical Society of the State of New York held its eleventh annual meeting in Batavia, Sept. 7, under the presidency of A. T. Lytle of Buffalo. All Officers hold over for the ensuing year as follows: President, Albert T. Lytle, M. D., 200 Lexington Avenue, Buffalo; First Vice-President, Edward Torrey, M. D., Olean; Second Vice-President, William R. Thomson, M. D., Warsaw; Secretary, Lyman C. Lewis, M. D., Belmont; Treasurer, Fitch Van Orsdale, M. D., Belmont. The next meeting will be in Buffalo.

Scientific Session—"Operative Obstetrics."—Dr. Irving W. Potter. Discussion: James E. King, M. D., P. W. Van Peyma, M. D., and Earl P. Lothrop, M. D., Buffalo; Ross G. Loop, M. D., Elmira; and W. Mortimer Brown, M. D., Rochester.

"Supra-Pubic Prostatectomy; Demonstrating Operative Technic by Animated Drawings."—William E. Lower, M. D., Cleveland, O.; Associate Professor, Genito-Urinary Surgery, Western Reserve University.

Case Presentation: J. Henry Dowd, M. D., Buffalo. Discussion: George W. Cottis, M. D., Jamestown, and Thomas H. McKee, M. D., Buffalo.

"Causes of Goitre."—Martin B. Tinker, M. D., Ithaca, President of the Medical Society of the State of New York; Assistant Professor, Surgery, Cornell University. (Stereopticon).

Case Presentation: Frederick T. Munson, M. D., Friendship. Discussion: John M. Swan, M. D., Rochester; George F. Cott, M. D., Buffalo, and William D. Johnson, M. D., Batavia.

"Cancer of the Rectum."—William Francis Campbell, M. D., Brooklyn; Professor, Anatomy, Long Island College Hospital. (Stereopticon). Discussion: Descum C. McKenney, M. D., Buffalo; William R. Thompson, M. D., Warsaw, and Harvey R. Gaylord, M. D., Buffalo.

"Pituitary Body and Pituitarism."—James A. Gibson, M. D., Buffalo; Professor, Anatomy, University of Buffalo. (Stereopticon).

Case Presentation: F. Park Lewis, M. D., Buffalo. Discussion: G. Kirby Collier, M. D., Sonyea.

The Elmira Clinical Society met Sept. 20 at the residence of Dr. Clyde Corey who presented a paper on Infections of the Eye due to Poultices.

The Chemung Co. Medical Society held its regular meeting in Elmira Sept. 19 under the presidency of Dr. R. H. V. Dann. Dr. Geo. Case presented a paper on "When Tonsils should be removed;" Dr. Anna Stuart on Surgical Haemorrhage.

The Elmira Academy of Medicine held its regular meeting Sept. 6, under the presidency of Dr. LaRue Colegrove. Dr. R. P. Bush of Horseheads read a paper on The State and Public Health; Dr. R. B. Howland of Elmira on Infantile Paralysis.

The Seventh District Branch of the Medical Society of the State of N. Y. held its tenth annual meeting in Rochester, Sept. 28. The officers who hold over for the next year are as follows: President, William Mortimer Brown, M. D., Rochester; First Vice-President, Fred R. Driesbach, M. D., Dansville; Second Vice-President, Charles E. Doubleday, M. D., Penn Yan; Secretary, John F. Myers, M. D., Sodus; Treasurer, Alfred W. Armstrong, M. D., Canandaigua; Reception Committee, Howard L. Prince, M. D., Chairman; Owen E. Jones, M. D.; Willis E. Bowen, M. D.; John R. Booth, M. D.; William I. Dean, M. D.

The scientific session was as follows, luncheon being served by the Medical Society of the Co. of Monroe at the Genesee Valley Club:

Opening Address, William Mortimer Brown, M. D., Rochester.

Address by President of the Medical Society of the State of New York, Martin B. Tinker, M. D., Ithaca.

"Application of the So-Called New Wartime Antiseptics to the Surgery of Civil Life," Charles W. Hennington, M. D., Rochester.

"A Composite Osteoplastic Operation for Wide Congenital Clefts of the Palate," John B. Roberts, M. D., Philadelphia.

Discussion, John Marvin Ingersoll, M. D., Cleveland, Ohio.

"Experiences with the Bone Graft in the War Zone of France," illustrated with moving pictures and slides, Fred H. Albee, M. D., New York.

Discussion, Howard L. Prince, M. D., Rochester.

"Seventeen Years of Organized Malpractice Defence," James Taylor Lewis, New York.

"Epidemiology of Poliomyelitis," Harold L. Amoss, M. D., Rockefeller Institute, New York.

Discussion, George W. Goler, M. D., Rochester.

"The Prognosis in Infantile Paralysis," Robert W. Lovett, M. D., Boston.

Discussion, Brainerd Hunt Whitbeck, M. D., New York.

"Practical Methods for Conserving the Bad Risk Patient," George W. Crile, M. D., Cleveland, Ohio.

Discussion, Martin B. Tinker, M. D., Ithaca.

"Is Medicine a Business?" John Mumford Swan, M. D., Rochester.

Discussion, Henry Lyle Winter, M. D., Cornwall; Albert T. Lytle, M. D., Buffalo, and William B. Jones, M. D., Rochester.

The Medical Association of Central N. Y. will hold its 48th annual meeting in Buffalo, Thursday, Oct. 19.

OUR CONTEMPORARIES

The Medical Times, Aug., under the heading of Poliomyelitis, says "If the Department of Health (of N. Y. State) ... had limited itself to what most of us consider its proper sphere, it would in all probability have been in a better position to cope with the epidemic or to prevent it. The epidemic ... should do more to regulate the Department's aberrant activities than all the conventional and apparently useless forms of protest combined. ... Too much remains to be done in public health work of a legitimate character, as is now tragically and indubitably revealed, for the community further to tolerate doctrinaire philanderings, involving among other things the greasing of the wheels of attempted socialization."

We have sometimes felt that the forestry commissions might conserve to better purpose the raw material which private and public health authorities so copiously use to "release for publication" statements either already well known by the profession, or not known at all, or not susceptible of practical assimilation by the laity. We have also felt that such authorities sometimes go far afield from the proper work for which they are hired and that they sometimes claim undue publicity for the possession of knowledge which is the common property of the medical profession and for the application of this knowledge to practical ends, as almost any private physician might do if he had the proper backing. But we do not think that the State Board of Health deserves this scourging either on general principles or on account of not having prevented or checked the poliomyelitis epidemic.

Does anyone know just what Commissioner Biggs and his staff could have done to prevent the epidemic? Just what blunders have these men made in the management of the emergency with which they have been confronted?

The American Journal of Tropical Diseases, and Preventive Medicine has been absorbed by the New Orleans Medical and Surgical Journal. The latter is one of the oldest and best medical journals of the country, antedating the Buffalo Medical Journal by a few issues but slightly below us in number of annual volumes, probably on account of suspension during part of the Civil War. There are only two extant medical journals in the western continent established prior to 1845, the Boston Medical and Surgical Journal, and the American Journal of the Medical Sciences, originally a scientific rather than a medical publication. The N. Y. Medical Journal, however, really belongs in this group through the incorporation of the Medical News.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

Division of Communicable Diseases

New York State Department of Health, Albany.

September 10, 1916.

Deaths in New York State 1915—Diphtheria 1751; Typhoid Fever 748; Measles 834; Whooping Cough 741; Scarlet Fever 413.

Dear Doctor:

Reports of cases during last month indicate that **typhoid fever** is unusually prevalent in your county. In order to control this disease the Department offers the following suggestions:

1. Report the case immediately to the health officer. Advise him regarding source of water and milk and any other possible source of infection.

2. In suspicious cases obtain a blood culture, if possible. After the 9th day send a specimen of blood to the laboratory for Widal test. The health officer has Widal outfits.

3. Use the same care in disinfecting the excreta of a **suspicious case of typhoid fever** that is used for a true case.

4. A disinfecting solution should always be kept on hand, made by placing $\frac{1}{2}$ -lb. of chloride of lime in one gallon of

water. Discharges from the bowels and urine should be received in bed-pans or other vessels containing a small amount of disinfectant. Later the excreta should be liberally covered with the disinfectant and allowed to stand for one hour; then the receptacle with its contents may be emptied into a water-closet or trench. The trench should be located a considerable distance from water supplies and should be 1 ft. wide, 3 ft. deep and 4 ft. long and covered with a plank to exclude snow or flies.

The hands of the nurse or attendant should be thoroughly washed with soap and water and disinfected with a 1 to 2000 bichloride solution immediately after caring for the bed-pan, after handling the patient, and before meals.

5. Other members of the household, if they have not had typhoid fever and are under 50 years of age, should be immunized with typhoid vaccine. This vaccine may be obtained from the health officer.

6. Other members of the family may pursue their usual occupations except as the health officer may otherwise direct.

7. If the patient lives on a dairy farm or at a factory or store where dairy products are sold regulation 37, Chapter II of the Sanitary Code must be observed.

8. Boil all drinking water and pasteurize the milk until the source of the infection is otherwise determined.

9. See that the Department's circulars on this disease have been distributed by the health officer to the homes of infected cases.

Very truly yours,

HERMANN M. BIGGS,

Commissioner of Health.

ABSTRACTS

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Military Surgery.

Autoplasty of the Corpora Cavernosa With Fascia Lata. F. Legeue, Soc. de Chir., Nov. 3, 1915, reports a civil case in which a large fibro-osseous plaque was removed from the

sheath, leaving too large an aperture in the sheath for direct suture. A square was cut from the fascia lata, sewed in place, the immediate and remote results (after 9 months) being good.

Saturnism From Projectiles. Loeper and G. Verpy, *Le Progres Med.*, June 5, obtained the lead reaction in the urine of 6 out of 16 soldiers carrying lead bullets of one kind or another. $\frac{1}{2}$ -1 m.g. was found per liter, the estimate being made that a soldier carrying a bullet of 20 grams would eliminate $1\frac{1}{2}$ m.g. of lead a day. In 38 cases examined, albuminuria occurred in 4, the amount varying from $\frac{1}{2}$ to 3 grams a day. Casts were present at times. 2 cases showed marked hypertension, 210 and 220 m.m. 2 showed marked anaemia, 2,800,000 and 3,200,000. Thus while uncommon and often detected with difficulty, they consider that lead poisoning may occur from this cause.

Bullets Extracted From Omentum. Andre Chalier, *Le Prog. Med.*, July 5, reports the case of an encysted ball, removed after 18 months and refers to similar cases reported by Walther, Couillod and Quenu.

Inguino-Abdominal Eventration. Mercade, *Soc. de Chir.*, Feb. 23, reports a case of a soldier aged 24, wounded by shrapnel. The intestine did not escape from the wound but was immediately beneath the skin and while easily returned, could not be kept in the abdominal cavity. A month later, the right rectus and the crural arch were found lacking. The sartorius was exposed, cut below its upper third and the inferior end attached to the vastus externus. The upper end was brought in front of the hernial orifice. The muscle of the obliquus externus was sutured to the pubis, pectineus, sheath of the vessels and psoas. A small hernia persists but is sustained by a muscular belt which allows the patient to exercise without discomfort.

Sign of Retroperitoneal Rupture of Colon. Andre Chalier, *Rev. de Chir.*, Aug. 1914-Nov. 1915, noted emphysema of the scrotum on the same side as a penetrating shrapnel wound, within 24 hours, the intestinal gases following the spermatic vessels. Recovery after operation.

Rupture of Both Lungs by Wind of Bullet. Sencert, *Rev. de Chir.*, Aug.-Nov., 1915, reports a case. The soldier died several hours later after repeated haemorrhages.

Bullet Free in Pleural Cavity. Pl. Mauclaire, *Soc. Chir.*,

Nov. 3, 1915, reports the case of a soldier, struck in the right buttock, the ball passing obliquely in front of the spinal column into the left pleural cavity. An artificial pneumothorax was created after the method of Forlanini and, 3 weeks later, the ball was removed by the finger, and forceps, from the cul de sac.

Intrapulmonary Shrapnel. Petit de la Visseon, Soc. Chir., Nov. 30, 1915, reports a case of repeated small haemoptyses for 7 months after a wound of the chest. Operation, with the assistance of radioscopy, consisted in opening the lung with the thermocautery, removal of the mass, weighing 20 grams and 6x1x1½ c.m., suture of the lung en masse. Three months later, perfect recovery. (Note: Visceral operations, of many kinds, inevitably produce occlusion of various tubules, by wholesale. We do not recollect any general study of the exact processes involved, by which serious results are prevented, nor of residual dangers from this mechanic factor. Such a study occurs to us as a valuable form of research in surgical pathology. Ed.)

Prophylaxis Against Asphyxiating Gases. Peyronnet of Lafonville, Jour. de Med. et Chir. Prat., Jan. 10, states that chlorin is the principal gas used by the Germans and that English officers who discarded their masks to issue commands were almost immediately suffocated. A wad of cotton in gauze is saturated with a solution of sodium hyposulphite 1,000, sodium carbonate 200, glycerin 150, and water 800.

Abandonment of Post in Face of Enemy: Epilepsy. Henri Verger, Jour. de Med. de Bordeaux, reports a case, with well marked personal and family history of epilepsy. The soldier had no recollection of his doings and returned to his station in the morning, when he was reproached by his companions. The author discusses the difficulties of diagnosis, especially in the brief time allowed for court martials.

Horse Serum in Treatment of Wounds. J. Lingnieres, Acad. de Med., Nov. 9, 1915. 10-12 liters of blood can be withdrawn from a horse, every 15-20 days, in two operations. 1/2% of phenol is added immediately after separation from the clot. It is applied on compresses, renewed once or twice a day.

Infections.

Typhoid Reactions in the Testicle, Epididymis and Spermatic Cord. A. Satre alludes to a previous report of Olmer & Voisin on several cases of typhoid orchio-epididymitis,

whose occurrence is about 1:200 cases of fever. He reports 5 cases of reaction in one or more of these organs following antityphoid inoculation. He considers the reaction independent of venereal or rheumatic infection in the past, even if such is shown in the history, and too rapid in its occurrence (as within 24 hours) to be an inflammation. He has noted 28 cases in 2900 inoculations, the combined inoculation against typhoid and A and B paratyphoid producing the reaction more frequently than either alone. Mild revulsive treatment, pyramidon and suspension reduced the swelling and pain quite promptly.

Typho-Diplococcaemia. A. Sartory, L. Spillman and Ph. Lasseur, Bull. de la Soc. de Med. de Nancy, 1916, page 611, have described a diplococcus frequently found in large numbers in the blood of patients suspected of typhoid or paratyphoid. Some others have verified their conclusion, Tremolieres has observed 16-17% of this infection (among cases of clinical typhoid). The organism is definite and acts alone to imitate typhoid or paratyphoid.

Tetanus Cured by Massive Doses of Serum. Gras, Le Progres Med., Aug. 5, reports the case of a cavalry soldier who received several small scalp wounds from being struck by the head of a horse. 12 days later he developed acute tetanus. 6 injections of 100 c.c. each were given in 15 days with complete recovery.

Transmission of Leprosy by Flies. E. Marchoux, Annales de l'Inst. Pasteur, Feb., states that flies (Diptera) carry the germs on the feet and proboscis, that the germs do not die in the flies' intestine, that a fly does not defaecate every time it feeds, that the danger of infection is local, not because flies do not travel to a considerable distance but because on long flights, the germs are detached and die.

Mycosis Due to Scopulariopsis Koningi. A. Sartory, Paris, Le Prog. Med., July 5. A milkman presented two gummatous lesions of the right thigh. Syphilis and tuberculosis were excluded. Mycelial filaments were found in the odorless, creamy pus and a fungus was cultivated, identified as above. Raymond and Parisot, Contes Hendues, de l'Acad. des Sciences, May, declare that this organism is involved in freezing of the feet.

Bacteriology of Epidemic of "Grippe" 1915-16. V. H. Moon and S. C. Summers, Indianapolis, Jour. Ind. State Med. Assn., Aug., in 17 cases examined by cultures from naso-

pharyngeal mucus, found no influenza bacilli but a green-producing, non-haemolytic streptococcus. No agglutinins were found in the blood of patients or convalescents but 5 showed a skin reaction indicating the persistence of antibodies. Mathers of Chicago, J. A. M. A., Jan. 1, found a haemolytic streptococcus in 17 of 24 cases; Rucker of Philadelphia, N. Y. Med. Jour., Feb. 12, found non-haemolytic streptococci in all of 20 cases, pneumococci and influenza bacilli being also demonstrated in two cases each.

Association of Amoebae and Dysentery Bacilli. Rousel, Brule and Barat, Soc. Med. des Hop., Feb. 25, believe that this is due to simultaneous infection, the amoebic lesions predisposing to bacillary infection. While bacillary dysentery is common in campaigns, especially in the tropics, and is thus easily introduced into armies in other climates, they emphasize the importance, even when the bacilli have been demonstrated, of seeking for amoebae.

X-Rays.

Simple and Rapid Method of Obtaining Skiagrams. Rivier and Dupoux, Archives d'Electricite Med., Aug., use ferrotype plates instead of glass. Very hard tubes are used (convenient as available for both fluoroscopy and radiography, 9 or 10 B with maximum of 2 milliamperes in the tubes, corresponding to a primary current of 6 or 7 amperes at 70 volts. The spark is 22 c.m. The exposure varies from 6 seconds for the hand to 60 for the cranium. All developers with metol-hydroquinine may be used if strong in bromid. The negative generally comes up in 2 minutes and the fixation of the negative in hyposulphite solution transforms it immediately into a positive, in 10-20 seconds. Washing and drying occupy 2 or 3 minutes. The whole process requires less than 10 minutes and, at ambulance stations, the plate can be attached to the patient.

Thorium for Pyelography. J. Edward Burns, Bull. Johns Hopkins Hosp., June, states that thorium nitrate, up to 50% in solution, is an ideal injection medium for pathologic and anatomic specimens intended for X-ray examination, the metal being next to mercury in atomic weight and the solutions being especially adapted to the demonstration of fine vessels. He illustrates with a cut of the rena pelvis and ureter and of the seminal vesicles, ampullae and vasa deferentia of rabbits, prepared with injection of 15% thorium nitrate and fixation with Kaiserling's solution which precipitates thorium in the walls of the ducts. The objection to thorium nitrate is its irritant toxicity. For clinical use, he

dissolves thorium nitrate in as little distilled water as possible, keeps it hot on a water or steam bath, adds 30 c.c. of 50% solution of sodium citrate, a little at a time, with agitation. A white, gummy precipitate forms, becoming granular and finally dissolving when all of the sodium citrate has been added. Normal solution of sodium hydroxid is added to make the solution neutral to litmus and the whole made up to 100 c.c. with distilled water. This is filtered and can be sterilized by heat.

Syphilis.

Intravenous injections of benzoate of mercury are condemned by L. Bizard and R. Klein (*Ann. des Mal. Veneriennes*, Dec. 1915) as accidents occur in nearly half the cases and the results are no better than from subcutaneous injections of the same drug and not so good as those from cyanid of mercury intravenously. They advocate as the best method, a daily intravenous injection of 1 c.g. of cyanid and a gluteal injection of 1-2 c.g. of benzoate. In milder or more susceptible cases, these methods are alternated.

In active military service, A. Bernheim (*ibid.* Oct. 1915) considers it sufficient to use benzoate or biniodid of mercury, 3 c.g. a day, with sulphur water as a drink or in baths, sodium arseniate and strychnine being also administered. Dental defects are treated (How about the danger to the dentist?) and dental hygiene enforced. After 21 days in the hospital, the soldier can be returned to active service without endangering his comrades or being liable to recurrences for a long time.

Mercurial poisoning, of scorbutic type, consecutive to treatment with grey oil. Ch. Audry, (*Ann. de Derm. et de Syph.*, Oct. 1915) reports a case occurring in a man of 58 who contracted syphilis in 1888, and developed signs of tabes two or three years ago. After the sixth of a second series of injections of 10 drops of grey oil, the author saw the patient for the first time. He was very feeble and scarcely breathing. There was enormous tumefaction of the gums, intense nocturnal salivation, no ulceration, no albuminuria. The patient died in a few days. While rare, these cases may occur especially after the age of 50. While insoluble forms of mercury are valuable, they should be used with caution.

Serous apoplexy of salvarsan. Sauphar, (*Soc. Med. des Hop.*, Dec. 21, 1915) states that most of the accidents imputed to salvarsan or neosalvarsan are of this type, occurring on the 3d or 4th day after the injection. With or without premonitory symptoms, the patient becomes comatose and dies in a few hours. Milan considers the pathology practically identical with that of cerebral crises due to nitrites, and

hence advocates the use of adrenalin, intravenously, in large dose. Sauphar presents a case apparently saved from the almost inevitably fatal "serous apoplexy," by this method.

Incubation period, from medico-legal standpoint. G. Thibierge (*Ann. de Derm. et de Syph.*, 1915) states that statistics show that the average duration of incubation is 25-30 days, that it is rarely less than 14-17 days and that it is difficult to fix the maximum except that the great majority of cases develop within 45 days, while the average period applies to only 40% of all cases.

Zoniform syphilides (the term should be either zonoid or cinguliform) Gaucher, Bizard and Bralez, (*Ann. des Mal. Veneriennes*, Oct. 1915) states that this particular manifestation of cutaneous syphilis was first described by Gaucher and Barbe in 1894. It occurs, according to both time and characteristics, as a tertiary lesion and assumes the 5 forms of the papulo-squamous type.

Bilateral palmar syphilide, of horny type, six years duration, rebellious to ordinary treatments and healed in 6 weeks by injections totalling 2.10 grams of arseno-benzol. Louis Queyrat (*Soc. de Med. des Hop.*, Dec. 17, 1915).

Paternal heredity of syphilis. Gaucher (*Ann. des Mal. Veneriennes*, Jan. 1916) believes that, though denied by many, this form is demonstrated clinically and serologically, by the exclusion of maternal infection. Paternal heredity is perhaps less grave than maternal but it is much more frequent (*sic*). It occurs in three forms: 1. Virulent, which may occur even after several years' duration, the infant presenting generalized secondary syphilis—infantile syphilis properly so-called. This is the classic hereditary syphilis. 2. Remote consequences, parasyphilitic and dystrophic lesions. 3. Hereditary taints recognized only by careful study. The author emphasizes the necessity of anti-syphilitic treatment immediately before marriage, even when the man is apparently cured and the syphilitic infection remote in time.

Galyl. Arthur Foerster of London (*Le Prog. Med.*, Jan. 5, 1916). This was synthesized by Mouneyrat, the discoverer of hectine. It is tetraoxy-diphospho-amino-diarsenobenzene, having in the molecule, 24 atoms of C, 22 of H, 8 of O, 4 of N, 2 of P, 4 of As, and containing by weight 35.3% of arsenic and 7.2% of phosphorus. It is a yellow powder, whose solution is no more difficult than for neosalvarsan. The best method of administration is by intravenous injection but intramuscular injections of oily solutions may also be employed, or otherwise as for neosalvarsan. A number of favorable cases are reported. Dyspnoea and partial syncope occurred after a dose of 50 c.c. but no unpleasant symptoms occurred after doses up to 40 c.g. As a routine, 30 c.g. for men and

20-25 c.g. for women are advised, repeating every 6-8 days. Mercurial treatment should follow. Petrini of Bucharest (Ann. des Mal. Veneriennes, April) also praises galyol and thinks that, on account of the dangers, salvarsan and neosalvarsan should be superseded.

French venereal statistics. Le Bull. Med., May 6, gives the following statistics for the first two months of the year:

		Civil inclusive of	
		Class of 1917.	Military. Total.
Blenorrhagias	5487	(1238)	2326 7813
Soft chancres	 824	(122)	138 962
Syphilis	1517	(205)	1470 2987
Total	7828	(1505)	3934 11762

Syphilis and wounds. L. Bory, (Reunion Med. de la 1re Armee, Le Prog. Med., July 5) cites three trivial wounds of the leg, rapidly becoming gummatous ulcers and one case of gummata developing in an abdominal scar after a shrapnel wound. Antisepsis, curettage and irrigation were in vain till general antisymphilitic measures were instituted.

Hereditary syphilis and cyanosis. E. Jeanselme, (Presse Med., Dec. 2, 1915) reports the case of a syphilitic mother with 4 children. The oldest, a girl of 11, had typic signs of cyanosis, a boy of 6 manifested an abortive form of cyanosis. Both had other syphilitic lesions. A boy aged 7½ had neither cyanosis nor indications of syphilis but, like the other two, gave a positive Wassermann. The youngest child, a boy of 4 seems to have escaped infection altogether.

Hard Cancre of Conjunctiva. Henri Fromaget of Boulogne-sur-Mer, Jour. de Med. de Bordeaux, reports a case in a boy of ten, involving the bulbar conjunctiva but not the cornea, without explanation, painless, cured by novarsenobenzol, the doses increasing from 15 to 60 centigrams, from Jan. 7 to Feb. 11 six altogether.

Syphilis of Stomach. Georges Hayem, Bull. de l'Acad. de Med., Feb. 29, reports a case and mentions a previous one, in which the gastric analysis and tumor, which on palpation seemed continuous with the hypertrophied liver, suggested cancer. The pain was more marked than in a properly treated gastric cancer case. The gastric lesion developed 40 years after the primary infection and was relieved by mercurial treatment.

Warts. Sulphur sub. 20%, concentrated acetic acid 10%, Glycerin to 100% is recommended for withering warts promptly, by the editor of the Surgical Clinic.

Nitrogen Metabolism During Pregnancy. Karl M. Wilson, Bull. Johns Hopkins Hosp., May, 1916. Several detail tables are presented. In two cases, for 10 and 7 days of the puerperium, respectively, the averages were:

Nitrogen intake	11.34 Grams	18.03 Grams
Nitrogen output		
Urine	10.91	15.96
Faeces	.82	1.06
Lochia	.49	3.40
Milk	.70	.32
Total	12.92	20.74

The nitrogen content of the ovum was estimated as follows: foetus 62.10, placenta 14.66, cord and membranes 2., amniotic liquid 0.19; total 78.95. In another case that stored 336.21 grams of nitrogen in 14½ weeks, the amount of stored nitrogen diverted to the development of the ovum was estimated as: foetus 64.5, placenta 11.73, membranes and cord 2., amniotic liquid 0.68, total 78.91. The following general conclusions are drawn:

1. In the perfectly normal pregnant woman, storage of nitrogen begins at a much earlier period than has hitherto been supposed; possibly the organism may acquire the capacity for storing nitrogen from the very beginning of the pregnancy.

2. In the early months this storage is far in excess of the actual needs of the developing ovum, and the excess must be added to the general maternal organism.

3. Storage of nitrogen continues throughout the entire duration of pregnancy, being most marked during the last few weeks, when the foetal needs are at a maximum.

4. The nitrogen stored is greatly in excess of the actual needs of the developing ovum, so that, apart from the amount needed for the hypertrophy and development of the genitalia and breasts, a large proportion of the nitrogen stored is added to the general maternal organism as "Restmaterial," though, concerning the form in which this reserve is stored, we are unable to make any positive statement. The nitrogen capital of the maternal organism is thus increased, though the reserve supply may possibly be entirely exhausted during the puerperium and period of lactation.

5. In the healthy woman, who goes through a normal pregnancy, the period of gestation does not necessarily represent a "sacrifice of the individual for the sake of the species," but may actually be a period of gain.

6. There is a relative increase in the percentage of urinary nitrogen excreted in the form of free amino-acids,

though not necessarily an absolute increase in this form of nitrogen.

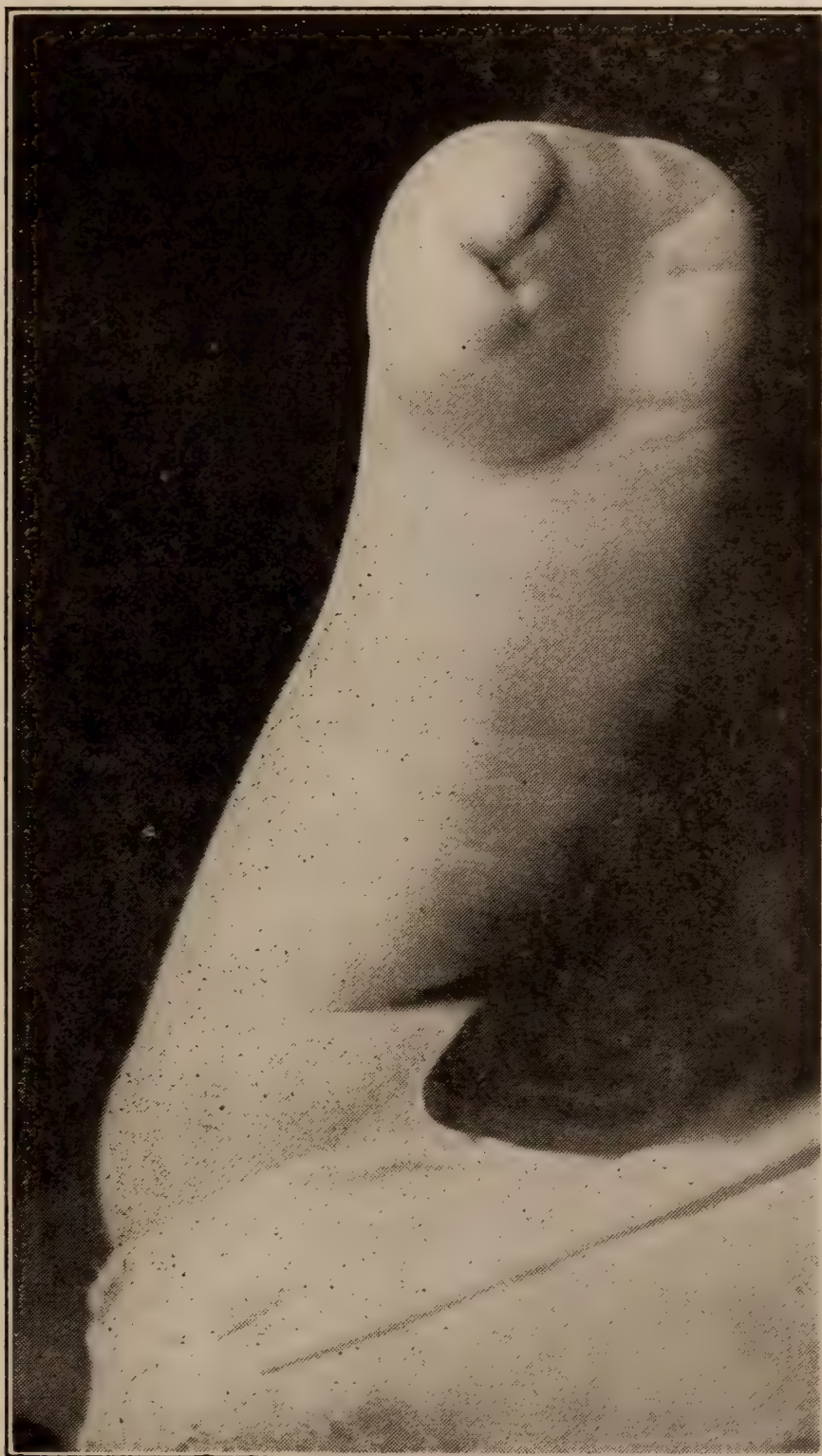
7. There is also a tendency for the percentage of ammonia nitrogen to become increased during the last weeks of pregnancy, although at other times during the pregnancy there is practically no variation from the percentages noted in non-pregnant individuals upon a similar diet.

Atypic Typhoid. Roger Voisin, Paris Medical, May 13, describes 5 groups of cases: 1. "Typhoidette," lasting 7-13 days, with Widal reaction constantly present, rose spots, ordinary symptoms but without diarrhoea or temperature above 39 C. 2. (17 cases) mainly ambulant cases, developing serious symptoms but lasting only 4-6 days after admission to hospital. 3. principal symptoms of gastric disturbance, temperature 38-38.5, initial vomiting and diarrhoea, relieved by purgation and diet of water followed by milk, but spleen remaining large for some time. 4. enterocolitis, constipation, marked symptoms of autointoxication, long duration. 5. cases marked by successive recrudescence or relapse with intervening apyrexia but symptoms rather mild.

(Note: Typhoid has been a very rare disease in Paris and probably in most French cities, for ten years or more. It is possible, therefore, that the suddenly acquired opportunities for observing numerous cases of the disease in military practice has impressed the author more strongly with atypic manifestations than would occur in the U. S. where typhoid has been very common till the last few years and is still frequent in numerous localities. Practically all the "groups" which he enumerates are encountered here. It may also be that previous unsuccessful—and perhaps partial—vaccination has really modified the course of the disease. In our own experience, we have been struck by the relative lack of serious results in ambulant cases).

Spontaneous Amputation. M. W. Theylis of Wakefield, R. I., Med. World, July reports the following case. (Illustration by courtesy of editor). A woman aged 53, the last of the full blooded Narragansett Indians, had had attacks of diarrhoea for five years, apparently from pancreatic failure. Nov. 1914, she developed general oedema and the left arm became gangrenous, the line of demarcation being established in Feb. 1915, 4 inches above the elbow. In April, she had gained in general health so as to be able to go out doors, the gangrenous fore-arm separating and the bones showing separation of periosteum. Operation had been repeatedly refused. In June, 3% of sugar was found in the urine, which had previously been free from sugar on several examinations, even

within a few days. In July, the radius and ulna were sawed off, 5 inches from the elbow, without anaesthetic and in Aug., 2 inches more were sawed off. In Oct. the patient fell and broke off the stump of the radius, from the elbow and in



Nov. the same accident caused the separation of the ulna. Two discharging points were left but these closed in 3 weeks. The ultimate result of the spontaneous amputation is shown in the cut. The patient is now in good general health and able to do practically all the work of her home.

Chloramine: Preparation, Properties and Use. Dakin, Cohen and Kenyon, Brit. Med. Jour., Jan. 26. This is para-toluene-sodium-sulphochloramid but as chloramine has been recorded in the U. S. as the name of an entirely dissimilar proprietary product, what the authors thus designate is marketed in the U. S. by the Abbott Laboratories, under the name CHLORAZENE. It is a white crystalline substance, with 3 molecules of water, soluble in water at ordinary temperatures up to 15% and in boiling water up to 50%. It is stable, non-corrosive even in concentrated solution, does not coagulate proteins and is practically non-toxic to animals, rabbits and guinea pigs tolerating 1 gram per kilo subcutaneously with no symptoms beyond moderate local reaction. As an antiseptic, it is closely comparable with sodium hypochlorite, weight for weight, its molecule being four times as heavy as the latter. It is much less irritating than sodium hypochlorite, as well as stable. The following table of comparative efficiency is given by the authors:

Two drops of a fresh culture of the organisms were suspended in 5 c. m. of fluid, either water or 50-per cent horse serum, and the antiseptic was allowed to act two hours at room temperature. In comparison, a few figures for sodium hypochlorite and phenol are added.

	Chloramine	Sodium Hypochlorite	Phenol
Staphylococci in			
water	1 : 500,000—	1 : 500,000—	1 : 250—
	1 : 1,000,000+	1 : 1,000,000+	1 : 500+
Staphylococci in	1 : 1500—	1 : 1500—	1 : 50—
serum	1 : 2500+	1 : 2000+	1 : 100+
B. pyocyaneus in			
water	1 : 200,000—	1 : 100,000—	1 : 200—
	1 : 400,000+	1 : 1,000,000+	1 : 400+
B. pyocyaneus in	1 : 1250—	1 : 2500—	1 : 25—
serum	1 : 2000+	1 : 5000+	1 : 50+
Streptococci in			
water	1 : 1,000,000—		
Streptococci in			
serum	1 : 2500—		
	1 : 5000+		
B. capsulatus in			
water	1 : 10,000,000—		
B. capsulatus in			
serum	1 : 2500—		
	1 : 5000+		

Complete sterilization is indicated by — while + indicates that organisms survived.

Native Medicines Used by the Pioneers. William M. Johnson, of Shawnee Mission, Kan., Med. Herald.

In the earlier days of this country his father and mother were missionaries. The nearest doctor was in Independence, seventeen miles away. So in cases of sickness they depended on home remedies more than anything else.

The inside lining of chicken gizzard was much used for indigestion and intestinal disorder. At that time they used this by making it into a tea.

This was over 35 years ago, and this remedy, dried and powdered, has since become well known as ingluvin, but in this form is not so effective as the fresh. Boneset tea was used in fevers, ague and indisposition. It was the greatest thing to make you sweat. All families gathered large quantities of it in the early fall and put it away for winter use. He has seen men perspire thru the mattress under its effects.

White Root.—This was what his father depended on more than any one thing in treating the Indian children for colds, making a tea of it.

White oak bark was used when they wanted a strong astringent.

Black walnut bark is a purgative and a very powerful one. The sap that runs from a scar on the bark dries and forms a soft mass. A small pill made from this is a strong purge.

Hoarhound grew wild in large quantities. When in bloom the bees would make honey of it; this they would save separate and use in colds and sometimes make into candy.

Sumach.—The Indians used to eat the new growth of this for stomachache and fever. It is very healing to a sore throat and greatly relieves catarrh. He still makes almost every fall a cough syrup of sumach berries, walnut bark, wildcherry bark and hoarhound.

Blackberry in a cordial was counted a sovereign remedy for summer complaint in children, and if the berries were not to be had a tea from the root was used.

Nightshade with cream made a fine poultice for poison oak. The dried leaf of the jimson weed, or stramonium, was smoked for coughs and asthma, and was much used as a strong relaxing poultice.

Dog fennel was a common counter-irritant used as a poultice and will draw a strong blister.

May apple (mandrake) root as a purgative and tonic was the basis of all early ague and chill medicine. The thought of the taste of a threatened tea made from this often cured laziness blamed on the ague.

Elder bark extracted in suet had great virtue as a salve.

Dried elder flowers were popular for fevers and as a tonic. Common plantain leaf had much use as a poultice.

The infusion of old tobacco pipe as emetic and purgative was the dependence of every old-time doctor and granny.

The process of "smoking them out" with chicken feathers burning on hot coals under the bed was the final cure, all used with great ceremony, when diagnosis was uncertain and all other remedies had failed.

Chloroma. E. W. Gould & L. T. Le Wald, of N. Y., Arch. of Paediatrics, June. This disease has been known since the beginning of the nineteenth century as chloroma, chlorolymphoma and green cancer. It is rare, the literature having recently been reviewed by Dock and Warthin. It occurs mainly in children and is more frequent in males. It is due to a hyperplasia of the parent cells of the leucocytes, especially in the red marrow but also in other leucoblastic tissues, so that neoplastic formations are found in the spleen, liver, lymph glands, etc. Exophthalmos, due to retro-bulbar lymphoma, involvement of the cranial bones, with swelling especially in the temporal and occipital regions, enlargement of the spleen, various lymph nodes, especially the cervical, severe, progressive, fatal anaemia, with rise of temperature, general disturbance of nutrition, especially emaciation, are the principal symptoms. The red cells are diminished by reason of lack of production and the white cells are usually increased at least at times, so that the disease has been classified as leucocythaemia. However, as in the present cases, the hyperplasia of the parent cells may reach such a stage that no excess of white cells reaches the blood—aleukaemic chloroma. The authors report cases in a boy of 5 and a girl of 3½, with typic clinical and pathologic findings, except leukaemia and barring the absence of post mortems which were refused. X-ray examination showed separation of sutures, especially coronary and parietal and mottling of long bones, due to rarefaction of medulla, also separation of periosteum in places.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. E. D. Leffingwell, brother of the above, Bellevue Hospital Medical College, 1877, died at his home in Oswego, N. Y., Sept. 10, aged 67. In 1881, after the destruction by fire

of the old Dansville Sanitarium, and during the construction of the present edifice of the same (now the Jackson Health Resort), he joined the medical staff and continued in the service for some years.

Dr. Albert Leffingwell, Long Island College 1874, died at his home in Aurora, N. Y., Sept. 1, aged 75. He had retired from practice and was interested in humane work.

Dr. Carnie Casander Thayer, Rush 1878, died in the Clifton Springs Sanitarium, from gastric and duodenal ulcer, During the Civil War, he served for two years on the Sanitary Commission and was subsequently a missionary in Turkey. He served for 21 years on the staff of the Clifton Springs Sanitarium.

Dr. George P. Eddy, Buffalo 1865, died suddenly at his home in Lewiston, July 4, aged 75.

Dr. Ozias Willard Peck, Yale 1857, died at his home in Oneonta, N. Y., Aug. 4, aged 81. He was a surgeon in the Civil War and was Health Officer of Oneonta for 26 years.

Dr. John G. Merrow (not listed in State nor Polk Directory) died in Utica, Aug. 28.

PERSONAL

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. Lester I. Levyn of Buffalo announces the removal of his laboratory of Roentgenology to 444 Franklin Street. Hours 9-5, by appointment.

Dr. Charles William Hennington of Rochester, announces the removal of his office and residence to 633 Park Avenue.

Misses **Bessie M. Scanlon**, **Alice Holman** and **Margaret Murday** of Buffalo, have sailed with a Red Cross Unit under

the direction of Dr. Earl B. Downer of Lansing, Mich. It will proceed to Petrograd via Christiana and will be assigned to duty in the Caucasus.

Frank Leroy Purdy, A. M., M. D., University of Buffalo 1895, who has been recuperating his health at the Jackson Health Resort, has opened an office at 554 Elmwood Avenue, Buffalo.

Dr. Nahum Kavinoky of Buffalo, has returned from visiting the surgical clinics at Rochester, Minn., Chicago and Cleveland.

Dr. Herman M. Biggs, State Health Commissioner, was operated upon in September by the Mayos, for appendicitis.

Dr. Milton E. Bork of Buffalo has been appointed Acting Superintendent of the Good Samaritan Dispensary.

Dr. J. P. Barr of Buffalo spent the latter part of August and first of September in Atlantic City.

Dr. Lucius J. Waterman of Buffalo returned September 22 from a motor trip down the state.

Dr. W. H. Coe, of Auburn, has removed from 82 East Genesee Street to his newly furnished offices and residence, 165 Genesee Street.

Dr. R. F. Johnson, of Auburn, has removed from 12 James Street to 161 Genesee Street.

Dr. Lawrence Sisson, of Auburn, has recently opened an office for general practice at 162 Genesee Street.

EDITORIAL ANNOUNCEMENT

Copies are needed to complete files as follows: Sept., Oct. and Dec. 1914. All issues of 1915 except July and Oct. Jan., Feb. and Mar. 1916. Reserving the right to refuse offers beyond the number needed, we will allow three issues of the present or future, applied in any way desired, for each old number received. For example, you can extend your own subscription period, or have the journal sent with your compliments to a friend—and with no fear of having him annoyed by solicitations for continuance.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Application of the So-called New Wartime Antiseptics to the Several Branches of the Surgery of Civil Life.*

CHARLES W. HENNINGTON, Rochester, N. Y.

Since the great war began, hypochlorites have come to their own as surgical antiseptics. As yet they are still intimately associated with military surgery. But the tremendous opportunity for their study has so absolutely established the method of treatment that it must be adopted in all wounds of civil life in any way analogous. Besides this, the time has come to test out the hypochlorites in other conditions not entirely analogous. But further and in addition to these obvious extensions, I have believed that it would be worth while to test them out in the various branches of surgery. They may prove of value in many other conditions in which antiseptics are used. Perhaps many unusual uses will be found for them to the advantage of all departments of surgical effort.

The most widely discussed of these hypochlorites is sodium hypochlorite, often known as Dakin's fluid, which has been introduced since the war began. Its use in wounds has been thoroughly investigated by Carrel at the Rockefeller laboratory and hospital at Campiegne. It is now used very extensively along the entire western front. Of late it has been used by the Germans as well, having been highly recommended by the great German surgeon von Bruns.

Besides sodium hypochlorite I wish to include those of potassium, calcium, and the recent very complex synthetic hypochlorites. These later hypochlorites such as para-toluene-

*Read before the Seventh District branch of the Medical Society of the State of New York, Rochester, N. Y., September 28th, 1916.

sodium-sulphochloramide, known in England as chloramine and in the United States as chlorazene, were also developed by Dakin and others in the search for more stable and less irritating forms. It does not seem unlikely that one of these complex hypochlorites may ultimately come into general use.

Besides these various hypochlorites, the war has called attention to valuable properties possessed by Sir Almoth E. Wright's solution of 5% saline and 0.5% sodium citrate used generally as a wet dressing. He had introduced this solution several years before the war, but again made extensive studies in its properties at his station at Boulogne. Wright's solution has much to commend it. It has gained a definite place in the treatment of infected wounds. My personal experience with Wright's solution has extended over about five years. Even if Wright's explanation of lymph lavage is not acceptable, yet it does seem that such a hypertonic salt solution would produce an osmotic flow toward the dressings and that the sodium citrate would prevent the coagulation of discharges. However it lacks the direct antiseptic properties of the hypochlorites which seem to be displacing it.

The hypochlorites and their disinfectant properties have been known over a century. Dakin himself has taken very particular pains to give the history. His so-called "new antiseptic" was discovered in 1788 by Berthollet. The composition of the mixture was not known precisely at the time. It was used as a disinfectant and a bleacher. It was produced by the action of chlorine on aqueous alkali solutions, especially soda. In 1792 the corresponding potassium salts were made commercially at the Javel works near Paris. This Javel water was used as a disinfectant. In 1820 the solution first mentioned was prepared in another way and became known as Labarraque's disinfectant fluid. Still later these two fluids were replaced largely by the solid and somewhat more stable so-called chloride of lime bleaching powder, more correctly known as chlorinated lime. It is a combination of calcium chloride and hypochlorite.

Dakin prepares his sodium hypochlorite solution from chlorinated lime and washing soda. His fluid is essentially similar to the first substance introduced over a century and a quarter ago. The disinfecting properties of all these substances were known but surgeons were hampered by their sharply irritating alkaline properties when in contact with tissues. It should be recalled that Semmelweis in Vienna in 1846 used chlorinated lime to eradicate puerperal fever from his clinic. Surgeons have widely used chlorinated lime and soda to sterilize the hands before operations. In the last decade "Chloride of lime" has been used widely to purify municipal water supplies, and water in tanks and

wells. The English expedition in Arabia is purifying Tigris River water in this way following the method of Major Lyster of the U. S. A. M. C.

The action of "chloride of lime" depends upon the liberation of chlorine. The commercial form will give about 35% available chlorine. In water it is effective in the proportion of two parts of chlorine to 1,000,000 of water. The powder is not added directly but is first dissolved and the supernatant liquid only is used.

A quite recent use is in the artificial purification of oysters. Only one part available chlorine to 4,000,000 parts of water and repeated in six hours is required.

It is not remarkable, therefore, that such a group of substances, of this history and of so wide present-day acceptance, should find a field of usefulness in the treatment of wounds. The originality of Dakin's fluid consists in depriving the sodium hypochlorite of its irritating properties due to the presence of free caustic alkali.

The principle of the preparation advocated by Dakin is as follows:—Chloride of lime (bleaching powder, chlorinated lime) is decomposed with a solution of sodium carbonate and to the filtered solution containing sodium hypochlorite is added boric acid to neutralize the excess of alkali. The resultant solution is a balanced mixture of hypochlorite and polyborates of sodium with small amounts of free hypochlorous acid and boric acid.

There seem to be several methods of preparing Dakin's fluid. They are as follows:

1. Dissolve 140 grams of dry sodium carbonate or 400 grams of the washing soda crystals in 10 litres of tap water. Add 200 grams of "chloride of lime" (chlorinated lime) of good quality and shake well.

In half an hour the clear liquid is siphoned off from the precipitate of calcium carbonate and filtered through a plug of cotton.

Then add 40 grams of boric acid merely to keep it neutral, and the solution is ready for use. It contains 0.5 to 0.6% of sodium hypochlorite. It does not keep longer than one week.

- 1a. Dissolve 105 grams of dry sodium carbonate in 1 litre of water.

Add 150 grams of "chloride of lime." The mixture is filtered and a measured portion is rapidly titrated with a boric acid solution of known strength, using phenolphthalein suspended in water as indicator, in order to determine the amount of solid boric acid to be added to the rest of the filtrate. It is best to add slightly less boric acid than the estimated amount because any excess is to be avoided. The solution thus prepared is much stronger, containing about

4% of sodium hypochlorite. It must be diluted with six parts of water before using. It will keep for one month however.

2. Carrel's Modification.

Dissolve 200 grams chlorinated lime in 5 litres of water, agitate thoroughly, and set aside over night, in a 12 litre jar. Dissolve 100 grams dry sodium carbonate and 80 grams soda bicarbonate in 5 litres of water.

Pour the two together and vigorously agitate one minute. In half an hour the clear liquid is siphoned off and filtered through paper. Then test with phthalein powder that it is not alkaline.

This newer method is more generally used now. It is about .5% strength and therefore ready for use.

Now in order to consider in what conditions, sodium hypochlorite or similar hypochlorites may be found useful, it is important that we first discuss the principles of their use in wounds. By doing so thoroughly it will be apparent how these principles might be transferred to conditions other than ordinary wounds. It is elementary, of course, that the hypochlorites should not be used with other substances as it decomposes many, notably alcohol, ether, peroxide, and various antiseptics. It will be recalled that in the tests for alkalinity the phenolphthalein is used as a powder or an aqueous solution for the alcoholic solution would be attacked.

Fortunately Dakin's solution is very cheap for experience has shown that large quantities should be used in wounds and the remotest parts irrigated. The wounds should be laid open wide with free incision to provide good drainage. Small tubes should be placed in the recesses and the irrigations repeated every two hours by injecting about 10 c.c. into each tube. The solution will thus bathe the deeper parts of the wound and is allowed to escape into the soft wet dressings, which should be changed frequently. Or it may drain into a trough conveniently placed under the wounded extremity. As much as 1 or 2 litres daily is used, or continuous drop by drop irrigation may be instituted for several days or a week. In this case the skin is to be protected with vaseline. If the wound is entirely superficial it can be immersed in a bath of the solution, but as a rule irrigation is more effective. There should be conscientious intelligent attention given to all details. Packing the wound with wet gauze or with sacs of agar to distend it has been found very useful. The deep wound can thus be converted so to speak into a large flattened-out surface wound.

The hypochlorites due to their action on the N. H. group

dissolve necrotic tissue and discharges. Osmosis occurs. Deodorization is achieved. Granulation is promoted.

An ideal antiseptic is one which can destroy bacteria without destroying the elements of the tissues. Protection of the cells "orthophylaxy" (Delbet) must be in mind constantly. Sodium hypochlorite possesses these advantages as well as permeability, ability to penetrate, solubility. It is non-toxic, thus much more desirable than the metallic antiseptics as mercury, silver, etc. It forms no insoluable compounds with proteid as is done by these and phenol and iodine. It has higher germicidal value than iodine and the phenol derivatives.

There are but two disadvantages. First, it may irritate the tissues if alkali is present, due to improper preparation or to decomposition. Second, it does not keep long, decomposing in a week in the diluted form and in a month in the concentrated form. The newer complex synthetic hypochlorites such as chloramine referred to above, are entirely stable and not so irritating. They also have another very important advantage being more easy to use for they are stable powders which merely require solution. Or they can be used dry. In passing it may be mentioned that some military surgeons do use dry dressings in conjunction with irrigations. Lumiere and others speak of using a mixture of calcium chloride and boric acid 1 to 3. Others use a much more diluted mixture 1 to 10. Dakin speaks of packing the wound with gauze impregnated with the chloramine. Chloramine is so far from being toxic or irritating that it is very useful in wounds of the jaw and in the mouth as a mouth wash.

Truly remarkable results have been achieved in military surgery by the use of these substances. In wounds of the soft tissues and in compound fractures and in many compound joint wounds the method is so absolutely established that it ought to be transferred to similar conditions arising in civil life. It seems but a step to apply it to the infected extremities that we meet so frequently in our dispensary practice; likewise in the treatment of persistent sinuses and fistulas; so also in leg ulcers and in dressing gangrenous extremities; in all open suppuration and ulceration; in burns; in plastic surgery to prevent infection. These and other conditions seem rather closely related to the types in which the treatment has been found so successful.

The hypochlorites might be tried out in persistent empyema and other sinuses and in urinary and gall bladder fistulas. Chloramine has been used in the mouth and urinary bladder in 0.5% strength for irrigation, and for chronic urethritis in 2% strength. In wounds it is usually used in 4% concentration. Might it not be useful in pyorrhea; in infections as-

sociated with vaginal discharge; in chronic inflammatory discharging conditions of the middle ear, nose, eye? I dare mention but a few of these as types.

In my experience I have used the hypochlorites in instances closely related to the group of various open lesions in which their use is based entirely upon analogy. But the further group of possibilities offers a large field as yet unexplored for I have found nothing in the literature. We know however that the developments of one field may often be appropriated advantageously to other remote fields of endeavor.

633 Park Avenue.

Salts and Iron in Modified Cow's Milk. Bartlett, Arch. of Paediatrics, Jan., calls attention to the fact that while salts are present to a greater degree in cow's milk than in human milk, the dilution of the former, reduces them too much. A liter of human milk contains 1-4 m.g. of oxid of iron, of cow's milk 0.4-0.7. Hence cow's milk as ordinarily diluted, is liable to produce anaemia, although the infant possesses stores of iron in the liver and spleen sufficient on breast feeding to carry it over till iron is obtained from extrinsic foods. The deficit of iron usually shows itself at the sixth or seventh month on artificial feeding, at the same time that dentition produces more or less disturbance. Egg yolk, cereals, cooked fruit, cooked green vegetables, especially spinach are recommended as additions to the diet, serving also to prevent scurvy (Barlow's disease). Carter, Practitioner, Feb., with special reference to **UNDILUTED CITRATED MILK**, incidentally covers a point of prophylaxis of infantile anaemia. Milk thus treated does not coagulate in large masses and hence may be given undiluted. The relative diminution of bulk of food imposes less strain upon the digestive organs, and especially tends to prevent gastric dilatation. 1/10 of the weight of the infant per day is the approximate standard suggested by Budin but the amount should be checked according to the condition of the individual child. Feedings should be as far apart as possible. (Note: We have been impressed in the last few years with the very general interest taken by young mothers in infant hygiene, their scrupulous care in following dietetic directions and the very practical results in the way of "good babies" and relative freedom of the mothers, due to careful feeding at intervals approximately double those in vogue a generation ago).

Mercuric Succinimid in Poliomyelitis. Large doses, intramuscularly, are recommended by Barton L. Wright, U. S. N., quoted in Med. Herald, Sept.

The Streptococcus Mucosus Capsulatus and Its Relation to Otology.

By HOMER A. TROTTER, Ph. B., M. D.,

New York City.

It has been the practice in the Eno Laboratory of the New York Eye and Ear Infirmary, under the direction of Dr. George Dixon, to examine smears from every case of suppurative middle ear disease, acute or chronic, admitted to the wards for observation. At this institution they have abandoned the use of cultivations after having used them for a short time, as the germs present in the canal were found to be always mixed, and so much time is lost in separating them. As the mastoid pus in cases coming to operation was also examined and comparison showed that the predominating germ in the canal was found in the mastoid pus with sufficient frequency to make it a good rule to regard the predominating germ in the discharge from the middle ear responsible for the mastoid involvement, and I see no good reason to change the view. As a rule we find the predominating germ shown in the smear from canal pus, in pus from the middle ear, in practically pure culture in mastoid pus, in pus from brain abscess, spinal fluid in cases complicated by meningitis. Dr. Dixon says, "During the past eleven years I have made 5496 examinations of aural pus. Of these 26.6 per cent has been mixed infection, that is to say that a number of mixed germs were present, and it is not advisable to charge the infection to any particular germ. The majority of these were chronic cases, and where a radical operation was done the mastoid smear usually showed mixed infection. Streptococcus occurred the predominating germ in 24.8 per cent; pneumococcus 12.2 per cent; staphylococcus (aureus and albus) 7.4 per cent; streptococcus mucosus capsulatus 4.8 per cent; spiroillum of Vincent 1.8 per cent. The remaining 22.4 per cent is represented by miscellaneous, negative, etc., among which are placed the bacillus pyocyaneus, diphtheria, tubercle, coli-communis, and Friedlander, etc."

The streptococcus mucosus capsulatus, in the matter of relative virulence compared with these various micro organisms, our experience leads us to regard the streptococcus mucosus capsulatus as standing first, also first in the destruction of bone. Streptococcus pyogenes next, pneumococcus third, and staphylococcus fourth, in acute suppurative processes about the middle ear, the streptococcus mucosus capsulatus is the most insidiously destructive the otologist is call-

ed upon to combat, and this cannot be made emphatic enough. The streptococcus mucosus capsulatus in a manner stands alone as being most virulent. When streptococcus mucosus capsulatus is the infective germ in acute purulent middle ear disease will tend to recover equally with the other forms of serious infection, provided it is seen early and proper drainage established.

THE ORGANISM.

Streptococcus Mucosus Capsulatus.

Morphology: The organism occurs single, in pairs, and short chains, the chains contain about eight to ten pairs, it resembles the pneumococcus, but is slightly larger and takes the capsular stain. It is gram positive and stains with the usual aniline dyes, but is best stained with dilute carbo-fuchsin. It is not motile and does not form spores. The capsule persists in artificial cultivation.

Cultures: It grows either in the presence or absence of oxygen, the organism dries out rather quickly in cultures. Media containing glucose the organisms life is longer. Blood serum (Loeffler's Mixture) the colonies appear as light colorless mucus, irregular in outline and become confluent to form large patches of mucus like material. The water condensation is slightly cloudy. Glucose agar-growth along the line of inoculation—slants—hemispherical masses of the growth extend into the surrounding media, in the vertical plane.

Gelatin—no growth (in room temperature).

Plain Agar Slants—a very slight growth.

Bouillion Plain—the growth is slight if at all.

Glucose Bouillion—a slight cloudiness with a small amount of stringy looking sediment in the bottom of the tube.

Glycerin Agar—similar to that of blood serum.

Potato—no growth.

Milk—is not coagulated.

Pathogenesis: Eight white rats, peritoneal cavities inoculated—they all died within twelve to forty-eight hours. Five white rats inoculated at root of tail, all died in from twelve to forty-eight hours. Rabbits and guinea pigs experimented upon, all died after inoculation. Examination after death shows a widely extended oedema at the site of inoculation, the spleen is enlarged and the peritoneal cavity is filled with viscid like material.

Toxin: Bouillion cultures filtered (germ free) and the filtrate injected into five white rats with no results—therefore toxins are not formed.

Summary: The micro-organism is frequently mistaken for the pneumococcus. At times it will stain very well, and show the capsule distinctly, other times the capsule is difficult to

make out, especially if over heated when fixing, and the stain is too old. (Dilute Carbo-Fuchsin).

CASE HISTORY

A male, seventeen years of age, in the service of Dr. Whiting, was admitted to the New York Eye and Ear Infirmary, on August 17th, 1916. He gave history of having had pain and constant headache for three weeks. Pain was dull in character and involved his left ear. Discharge from the left ear was evident, which begun three weeks previous, following bathing in the sea.

August 22nd, 1916: Incision made in left M. T., he was under observation and ran a temperature ranging from 100 degrees F. to 104.6 degrees F. until September 1st, 1916, (fourteen days). X-ray reports showed that a large area of pneumonic bone on right side, with extensive zygomatic cells on both sides. Right side clear. Left side cloudy and appearance operative. Sinus not shown. Smear from canal—right—few staphylococcus and short streptococcus,—left—unsatisfactory. Blood count—reds 4,200,000—white—19,100 Differential—Polys—86.2—L.2.2.—small 11.6—Eosinophiles—None—Masts—None—Myelocytes—None.

August 23rd, 1916: A diagnosis of O. M. P. A. Mastoiditis, left, was made, and a simple mastoid operation performed. Bone was found to be slightly necrosed. The antrum contained granulation tissue, but no free pus. In a few cells over the sinus free pus was found, and a smear taken showed a mixed infection, with streptococcus mucosus capsulatus predominating, small area over sinus was exposed. No dura exposed.

August 29th, 1916: Patient developed meningitis, his neck became stiff and drawn backward, Kernig's sign was present.

August 30th, 1916: Spinal fluid was withdrawn which came away under considerable pressure, cloudy, globulin, positive—Cell Counts—1180 M. M.

Culture from spinal fluid showed.

A pure growth of streptococcus mucosus capsulatus was obtained. Anti-streptococcus serum was used in treatment, but did not effect improvement.

Patient died after becoming irrational and greatly cyanosed.

Conclusion: That the streptococcus mucosus capsulatus is a variety of pneumococcus is held by some bacteriologists. Park and Williams, the Rockefeller Institute, and some others hold this view, and call this variety of pneumococcus, pneumococcus mucosus.

In 1905 Park and Williams placed this variety with the

pneumococci. Newfeld, Cole and Dochez have shown that certain pneumococci may be grouped according to their agglutination reactions, and are as follows, viz.:

Group I. and II. Typical pneumococci.

Group III. *Pneumoccus mucosus*.

Group IV. Heterogeneous strains.

Dr. George Sloan Dixon and others are of the opinion that the microörganism under discourse is a streptococcus, and not a pneumococcus, because of its characteristic behavior on culture media, and the results of animal enoculation.

From my work at the New York Eye and Ear Infirmary, and the Roosevelt Hospital Laboratory, I am inclined to believe with Dr. Dixon, however, either side are not definitely sure of its true position, and more work on this very destructive microörganism may establish its true identity.

Disorders of the Thymus in Adults. G. H. Hoxie, Kansas City, Med. Herald, Sept., gives the weight of the thymus as follows; at birth 230 grains; 2 years 437; 14 years 432; 25 years 353; 35 years 250; afterward 215., subject to individual variation. Removal in young animals causes stunting due to dystrophy of bones, changes occur in the spleen and adrenals and death usually occurs with cachexia. Hypertrophy usually produces a condition resembling hyasthenia gravis. Hyperplasia leads to both mechanic and chemic disturbance, thymic asthma and status lymphaticus so-called. Tumors are chiefly adenoma and teratoma, the former sometimes giving the picture of myasthenia, the latter the mechanic features of oppression and suffocation. Feeding experiments produce contradictory results. A persistent thymus gives a varied symptomatology but usually, there is weakness, shortness of breath and intestinal sluggishness. Diagnosis is made by percussions and X-rays.

Strangulated Diaphragmatic Hernia. Junior Vitae of Libourne, Jour. de Med. de Bordeaux, Aug., reports a case of intestinal obstruction with typic symptoms except that the patient could rise from the bed and, indeed, found partial relief from a crouching posture. Exploratory operation revealed a part of the ileum passing through the left diaphragm. It ruptured during withdrawal but the obstruction seemed to be relieved. Buried sutures were placed for an extent of 10 c.m., the peritoneum was flushed and drained. Death ensued the next morning. Necropsy showed that, in addition to the ileum, an intricate mass of transverse colon, loops of small intestine and epiploon were involved in the hernia. The hernia had undoubtedly existed for many years if it was not congenital.

Introduction—American Balneology

DR. FELIX VON OEFELE, New York.

Chemically pure water can be produced only by the reaction of pure hydrogen and pure oxygen in the chemical laboratory, as the well known Professor Oscar Loew (a born American scientist) did in large quantities for his sugar syntheses at Munich. We will find his name with the investigators of California mineral springs. Water is retained pure with difficulty, is a colorless, odorless and tasteless fluid and has a high solvent power for many chemical compounds. An almost pure water is the so-called distilled water, purified by evaporation and recondensation. It is similar to rain water, but still purer. The rain water is distilled by nature and absorbs some vapors and suspensions of the air, from which the artificially and properly distilled water is protected.

Water, as it falls from the clouds in the form of rain, absorbs particularly various gases, impurities of the air, so that when obtained in its purest natural state, it contains Oxygen, Nitrogen, Carbonic acid and sometimes traces of carburated Hydrogen, Sulphur dioxyde, Nitric acid and Ammonia. Having fallen upon the earth the water penetrates the soil and rocks of the surface of the earth and it may lose some part of its contents, but takes up various other salts and organic substances from the soil. It reappears earlier or later on the surface of the earth. A place where such water appears continuously is called a spring and, where it does so by human artificial means, a well.

As to their occurrence, springs may be divided into four classes: (1) Natural drift springs, (2) natural stratum springs, (3) natural fault springs, and (4) artificial wells including largely the artesian wells.

The common well is an artificial drift spring. The artesian well is an artificial stratum spring. Artesian wells are created artificially by tapping a continuous water bearing stratum in the bowels of the earth. The water from it flows by natural hydraulic pressure. If surface water is collected in a hole with water proof walls, we call it a cistern. The cistern keeps the water cooler and purer from germs than a surface reservoir. If an artificial hole within the drift or below the drift collects the water dripping from the surroundings, we call this a well.

Since drift is the uppermost brittle layer of the earth's crust, the water of drift springs did not penetrate the solidified rocks. The waters of a stratum spring pass through a number of layers of deposited solidified rocks, before they again

reach the surface through the medium of the lowest stratum, which the water had reached. Fault springs are due to a disturbance of the regularity of the earth's strata by reason of a fracture. In such instances, what was originally one continuous stratum is broken up and presents disturbed strata on both sides of the fault. In fault springs, the entire water or a large percentage of it often rises in a column or ribbon above the level of the earth and consists of a large amount of magmatic water.

Many individual springs arise everywhere upon the surface of the earth. Only in the deserts and in Egypt are springs very rare.

All spring waters, having been in contact with different strata of the earth, hold in solution variable quantities of anorganic compounds, the nature and quantity of which depend upon the geology and petrography of the region. Therefore every spring water contains some carbonic acid, sodium, calcium, chlorine, sulfuric acid and silicon. The same constituents are the anorganic matter of the human serum and of all the physiological liquids of animals and plants. Average springs contain far smaller quantities of the rarer constituents for instance Potassium, Magnesium, Bromine, Iodine, Iron, Aluminium and other ones. Both these groups of constituents have quantitatively different valencies as physiological agents. We must differentiate them into the invalid and valid group.

Some water may be used for technical purposes, but not as desirable drinking water for the human being. Other water may be good enough for drinking purposes, but not for certain technical purposes. Some waters are good in both regards, some are not good in either regard. And, also, these four groups are not separable by strict boundaries. Different species of animals and different races of human beings depend to a different degree upon pure drinking water. The absence of water forms the desert. Where water appears within the desert the life of plants and animals starts. The standard of a useful drinking water is unrestricted there. But where large cities are situated on the margin of mountains with manifold development of different geological strata, aqueducts have been constructed for thousands of years. The city Assur of old Mesopotamia is an example. The best resources of water are selected. Later the emperors of old Rome supplied the city with streams of the best water. Not theory, but practical experience showed in old times the best waters of drinking purposes, domestic use and technical needs for these large cities.

Every spring water may be used under certain conditions for therapeutic purposes. It depends upon circumstances, if

this or that water is preferred. Every water may be used in exceptional cases as a medicinal water. This proves the impossibility to separate absolutely medicinal waters and common waters. The highly mineralized waters are rejectionable for common use, but show clear pharmacodynamic properties. The low mineralized waters are desirable drinking waters. Some are more, some less desirable. This desirability may also change according to circumstances. The wealthy man may use a more desirable bottled water instead of the common water of his residence by his own selection. That is a table water.

For more than two decades the Chalybeate Water of Sullivan County, New York, was very little used for therapeutic purposes with medical advice. I myself made the first chemical analysis and interested the medical profession. Some physicians have sent an increasing number of suitable patients there. The proprietor did not acknowledge the advice of experienced practitioners. The local lay people tried to invent their own methods of application in order to save money and increase the profits. The medical profession will not patronize such a spring while under such control. Mistakes lasting years or even decades or even centuries may be overlooked, if the spring eventually comes into the right hands. During the mistakes is it not a useful medicinal spring; after the rectification it will again become a useful medicinal spring and the patronage of the medical profession will return at the same time.

The physician may be enforced by circumstances to prohibit the use of the residence water and to recommend certain table waters. There the table water begins insensibly to become a medicinal water. No strict limits exist between common useful water and table water and medicinal water.

The occasional recommendation of the physician may include the best waters of neighboring townships. A small township may select from a number of springs of the vicinity the least objectionable water and neighboring townships with worse water supply may estimate such water as table water or more as relative medicinal mineral spring.

The definition of good drinking waters, domestic waters and technical waters is developed by experience and can only be given by the collection of properties and comparison of old recognized waters.

DEFINITION OF MEDICINAL MINERAL SPRINGS.

There are many thousand natural springs in the United States, of which however, only 782 are reported to have in 1911 actual sales of water. The number in other years is not much different. These springs include table waters and

medicinal waters; more than two thirds of the money value of these sales are from table waters.

American country mineral springs are little known and are less used by the medical profession. But innumerable American springs may be used therapeutically for the benefit of many sick people.

The question has often arisen, as to what a medicinal mineral spring is, and as such what its action upon the ailing or sickly is. A mineral spring is a body of natural spring water containing a certain amount of dissolved minerals in such quantities as to exert a physiological action upon the human body, and may be capable of being useful by its special chemical or physical constitution for therapeutic purposes in treatment of sick people besides augmenting the supply of water to the blood and tissues. The therapeutic uses of such waters depend upon the nature or properties of the mineral matter present or absent. This constitutes the difference between medicated (mineral) waters and ordinary (potable) water. The European Appolinaris water is no medicinal mineral spring in two principal regards. It is not a natural spring water and is only used as luxurious table water without therapeutic intention.

The action upon the sick people is not as readily answered. First because there are so many different varieties of mineral springs; secondly it entails a knowledge of the particular spring in question and an authentic, scientific analysis of the springs contents.

This is the result of a historical development. A high percentage of nomadic and highly cultivated countries since time immemorial have semi-annually or oftener changed their residences. The prominent people lived in cities in the winter season and in summer season in the country. The increased need of cities enforced larger water supplies. The different influence between well or river water of the city and of country spring water was early noticed. Sick people used the summer resorts of friends with more fitting spring water, it was a primitive mineral spring cure. A special issue of the Hippocratic collection concerns the influences of different climates, waters and locations. The continuous comparisons with Egypt and some time with Macedonic conditions prove the book as an original very old Egyptian book translated and adapted to the country and time of Alexander the Great. The hunting tribes of the Indians changed the summer and winter resorts through necessity resulting from primitive food supply without the development of cities.

The useful water of the single case may have been purer or lower mineralized or may have contained a larger amount of pharmakodynamic constituents or properties. As stated above,

the dissolved mineral constituents must be divided into valid and invalid ones. The action of the valid constituents depends less upon their present amount and is pharmacodynamic. The action of the invalid constituents depends upon a present excess and is physiodynamic.

The undoubtedly medicinal water starts, when the trace of this or that valid constituent of a low mineralized water passes the boundary of pharmacodynamic action. A low mineralized spring may contain particular valid constituents in a relatively high percentage. The valid constituents furnish subdivisions of low mineralized waters in chemical regard. Silicon and Magnesia stand on the boundary of invalid and valid constituents. Invalid constituents may only create classification of mineral springs of supermineralized character.

Medicinal mineral springs may differ from common springs in one or more of the following properties: 1) in temperature, 2) in an uncommonly prevalent amount of one or more of the rarer constituents which we call the valid ones, 3) in abnormal low or 4) high amount of one or more of the common constituents which we called the invalid ones and 5) in a differing pressure of gases. These classes of springs are named according to their content of constituents.

In the majority of waters, an analysis has not been done upon the American springs. There are many widely advertised mineral springs whose owners claim them to contain certain valuable ingredients of great medicinal value of the valid group and capable of alleviating and curing all manner of diseases. This in reality, they are incapable of doing, because the efficiency of every spring is limited to few symptoms important for a particular group of diseases. It is not because the owners are dishonest and wish to hoodwink the public, but because their knowledge of the springs contents is what they have learned by empiricism and by expansion of this empiricism by flattering friends without criticism, then again by some arbitrary analysis claiming indefinitely faint trace of some valid constituent and not by a careful and scientific one.

Epidemic Gonorrhoea. Bendig of Stuttgart, Muench. Med. Woch., describe epidemics involving two institutions for girls. One girl aged 8, was the origin of the disease in 15 of 40 inmates, due to the custom of having two girls bathe together and use the same towel. There was ophthalmia, endocarditis or perimetritis but the course of the cases was prolonged, from 10 weeks to 279 days in one case. Treatment consisted in santal oil internally, irrigations of potassium permanganate and protargol and swabbing with ichthyol..

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Investments.

You know whether your money comes easy or hard, whether you can afford to gamble with it or whether you want a safe investment. There are some facts so well established that they are almost axioms. 4%, compounded quarterly, can be obtained almost anywhere, with perfect safety, in a bank. A higher rate than 6% is almost always speculative and involves considerable risk. A promotor, that is to say a man who earns (?) his living by speculating with other persons' money, is not absolutely dependable. He cannot be depended upon to spare his personal friends or even relatives. His stock in trade is acquaintance and he cannot be expected to differentiate. The same rule, by the way, applies to the dead beat.

Life insurance appeals especially to those who have dependents, and whose earning power is relatively higher than their capital. It should be considered simply as insurance against want on the part of dependents. Most policies are stated to be good investments in case of survival. Our experience and observation show that they are not. Usually the premiums are returned intact or invested in paid-up insurance or in some other way; probably in the majority of cases, they are returned with a slight increment but seldom or never is the investment value of insurance equal to savings bank interest. Annuity insurance does not surpass the normal interest on an investment on which the capital is not forfeited, until one is well past 50. Money deposited in a good savings bank—and the chances of a bank's being solvent

is about the same as for a standard insurance company and better than for one that is not standard—is just as good insurance, as an equal amount payable on death. It is also available in other emergencies than death, which may be a favorable or an unfavorable factor.

The value of stock depends entirely on the willingness of active men in control of a business to work equally for their own interests and those of silent partners who invest no knowledge of the business. Stock may also impose obligations on the holder. Even when a business is successful, dividends on stock may be suspended for years to enlarge a plant, or excess salaries may be paid to those directly interested or the company may sell out, to the detriment of investors but to the benefit of those conducting the business. Such stocks as have by experience been shown to be good investments are now held at such an advance that the present investor usually gets less interest than on other safe investments.

It is a good rule not to make life insurance payable to a given beneficiary but to one's estate, willing the insurance or any part of it, as desired. For instance, insurance taken for a fiancée or wife may possibly prove to have been taken out for the wrong person and, in general, the death of beneficiary may result in inheritance by persons wholly out of the consideration of the one making the payments. A young man insured his life for the benefit of his mother—a most natural and proper course, apparently. But, by the prior death of his mother without a will, he carried for many years, insurance which was virtually in the interest of two husky brothers-in-law, one of whom would have been honorable enough to transfer it to the proper subsidiary beneficiaries, the other who probably would not have done so.

Government bonds. These pay low interest but are usually exempt from taxation by the corresponding and subordinate government units. They are probably the least troublesome and safest investment for a person with adequate capital but yield only half to two-thirds of what can be derived by ordinary care from other safe investments. Bonds by subordinate branches of the government, as counties, towns and cities, pay slightly higher interest than those issued by a national government and are almost absolutely safe, providing that they have been issued with perfect technical legality. This last proviso, introduces a practical element or risk, not great, but worth careful consideration. The high interest on national war bonds is a recognition of the danger of national defeat and possible insolvency.

Private bonds. These are divided mortgages. There is a technicality which, in some instances, allows what are second

liens on property, to be described as first mortgage bonds and this point should be carefully considered. Bonds depend on the property value and solvency of the club, institution or firm issuing them. In the case of any social or philanthropic institution, there is a chance that considerable pressure will be exerted in the future to cancel the indebtedness by surrender of the claim.

Real Estate. This is the soundest of all investments provided that due care is exercised in the purchase. It is a safe rule never to invest in anything at a distance or that has not been personally seen and carefully considered. The man who buys bare land or any other real estate, which he does not intend to manage and use himself, and with the expectation of selling out at a big profit to somebody else, without any exertion on his own part, deserves to lose and usually does. A six per cent. investment, allowing for reinvestment of interest, should double in about 12 years. Undeveloped city lots must double much sooner to allow for ordinary taxes and must double in price immediately, to make up for taxes for paving, sewer and water connections, etc. Hence, the only chance to make easy money on such an investment is to invest at the beginning, at the low price and to sell while the excitement of a boom exists. Do not overrate your judgment in a speculation about which you have no expert knowledge and which is subject to unforeseeable conditions.

As a general rule, it is wise not to buy anything which you cannot use yourself, either personally or as a business. Allowing for taxes, repairs, insurance, vacancy and dead beats, 10% gross rentals, actual and possible of maintenance for the future, are necessary to pay a bare 6% and a great deal of personal attention will be necessary. Look out for "planted" tenants supposed to pay a high rental, for structural defects—even chimney places without chimneys, and a pending order to tear down an old building as unsafe and unsanitary, have been encountered—and for conditions liable to result in future diminution of value. But a home or a desirable building housing several tenants bought on a 10% basis or better, is usually a good investment. Avoid absentee ownership, not for the sake of tenants in this country but for your own sake. Do not buy a farm or a picture show or a factory or anything else adapted to limited use unless you are familiar with the business in question.

Real estate mortgages are, on the whole, the most profitable and most easily managed investments for the man of small capital. Usually, 5% is paid on first mortgages amounting to half of the full nominal value and three-fourths of the sacrifice value. As this interest can be compounded only by reinvestment, it is not so very much better than savings bank

interest. 6% can be had on larger first mortgages or on second mortgages. A mortgage should not be placed unless ultimate ownership on foreclosure—involving an additional investment of \$150 or more—affords a chance to make good on the 10% basis discussed for actual ownership. In fact, while a mortgage should not be bought with an idea of foreclosure, it should not be placed unless one is willing to take the property if necessary. Do not take a mortgage unless a thorough search as to title has been made and make sure that taxes, and other liens ahead of yours, are promptly paid. While no allowance should be made in taking a mortgage for anything beyond the value of the property itself, the ability and willingness of the owner to pay taxes, interest, etc., is a point to be considered. Many persons “buy” a home making a small payment of cash, stand off taxes, interest and repairs as long as possible and then pose as martyrs to the cupidity of a hard-hearted mortgagee, after having had many months’ rent at a nominal price. While, of course, first mortgages are generally safer than second, a disproportionate first mortgage running a long term before maturing, so that great depreciation may occur, is often not so safe as a second mortgage which leaves a greater net equity in the property and which is payable in frequent small instalments. And a second mortgage representing part of the obligation in buying a home by an honest and thrifty man, may be much better than a first mortgage which is simply an easy way to raise cash by a man who is extravagant and who has little conception of business obligations.

Insurance Proofs and the Attending Physician.

We have been asked to express an opinion on this subject. The following is presented for what it is worth with the hope that it may be freely criticised.

An insurance company obviously has the right to demand proper proof of death and must depend ultimately on the report of the attending physician. But, it must not be forgotten that the function of insurance is to insure, and that insurance should be paid promptly; that the insurance company has no claim on the services of the attending physician and no right to invade the confidential relations existing between him and his patient. Neither should insurance be voided on account of any technical flaw. For example, a poor widow lost her home by fire and payment of insurance was refused on the ground that an outbuilding stood too near the house, though this had nothing to do with the fire itself. Fortunately, so many threats of cancellation were made by

influential friends that the claim was eventually paid. One of the writer's patients was killed by a bullet. Payment of insurance was refused on the ground that a misstatement had been made in the application in regard to the existence of gastric ulcer and the company tried to force a statement—contrary to the principle of privileged communications—to void the insurance. It is perfectly obvious that the question of gastric ulcer had no relation to the cause of death and it is not at all probable that the patient had sufficient technical knowledge of his own case to warrant the belief that he deliberately made any misstatement to the company examiner.

Our solution of the problem would be as follows: Do away entirely with the personal approach of insurance representatives to physicians, undertakers, nurses or friends. Base the proof of death entirely on death and burial reports filed with the proper health department. The government is directly responsible for the accuracy of these records and they are open to inspection by any one properly interested in them, either free or at a nominal charge. While these records are based on the skill and truthfulness of private individuals, the government has, so far as practicable, the power to enforce accuracy and, granting that it has not, it is not probable that a physician will materially change his statements in making out a separate report for the insurance company. Establish a reasonable but brief time limit on the payment of insurance claims, say ten days from the date on which formal notice has been given that the death has occurred and that the proper certificates have been filed with the local health department. Provide for excess rate on any delayed payment enough to discourage delay but not of unreasonable amount, say 1% a month as in the case of delayed taxes. As in the case of contracts in general, the insurance company would, of course, have the right to contest cases in which fraud might be claimed though, if possible, the initiative should rest with the company, from the very nature of insurance. The attending physician, undertaker or anyone else having personal knowledge of the case could, in such an event, be subpoenaed. Serving as witness is a disagreeable task and one that is seldom properly requited but it is a duty of the individual to the community, offset by his own potential rights for the same service. The ordinary legal safeguarding of evidence and especially the principle of privileged communications would thus be insured.

In the case of health and accident insurance, very different procedures would be required, unless in the future, such insurance is to lie entirely in the hands of the state. Under present conditions, it is difficult to avoid securing state-

ments from attending physicians. The best solution of the problem that we can suggest is a law requiring representatives of the company to call upon the patient only in company with the attending physician or such other as the patient may designate, to place a heavy penalty upon the invasion of a patient's room, in a hospital or his own house or elsewhere, by an agent of the company except thus accompanied, to require reasonable promptness in making such a joint visit, to establish a reasonable average fee or schedule of graded fees for the issuance of a certificate by the attending physician, to be paid directly and immediately by the insurance company, and ultimately or not by the patient, from his benefit, according to the contract which, of course, would be subject to competition among different companies.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Universal Military Education and Service: The Swiss System for the U. S. Lucien Howe, M. D., Buffalo. Fellow of the Royal Society of Medicine, Member of the Royal College of Surgeons, Professor Emeritus of Ophthalmology, University of Buffalo. G. P. Putnam's Sons, N. Y. 138 pages, \$1.00.

This work by our distinguished fellow townsman is not merely an advocacy of military training for its physical and disciplinary value and as an insurance of peace, but a collection of definite facts bearing on the subject. It is arranged in the form of questions and answers. The literary style is pleasing, in spite of the effort at condensation and the attitude of the author so conservative as to carry conviction. We have often said that physicians ought to be selected to prepare works on law and science, as well as on sociologic questions, from their professional habit of dealing with facts, getting at the ultimate truth, and sense of obligation to search authorities for available sources of information. In these respects, this book by a physician, is far ahead, chapter by chapter, of any discussion of military preparedness by military men that we have encountered, so far as the education of the people is concerned. It is estimated that the annual expense for military preparedness, \$750,000,000 a year,

is insurance at the rate of $\frac{1}{2}\%$ per year—about the same as for insurance against fire. As we spend 2 billion a year for liquors, 1 billion for tobacco, 800 million for jewelry and plate, 85 million for millinery and 80 million for patent medicines, the question as to whether we can afford this insurance is answered at a glance. Chewing gum alone, would cover the expense of two battle ships a year. The argument that military training incites to violence is answered by the statistics of murders which are, per 100,000 population per year, 0.9 in London, 2. in Berlin, 3.5 in Paris, 7.1 in N. Y., 9. in Chicago, 13.4 in San Francisco, 30 in Charleston and 68 in Memphis. The physical advantages of the Swiss and Australian system of military training in the public schools and, conversely, the educational advantages connected with the comparatively brief additional periods of actual camp service or of service in the regular army or navy, are well presented. While neither an alarmist nor a partisan, the author does not mince words in dealing with the possible dangers to which our country is exposed. Indeed, he presents a table showing the number of days and size of armies required to invade our shores from various foreign countries. The book is one which every citizen ought to read carefully.

Disorders of the Sexual Function in the Male and Female.

Max Huhner, M. D., N. Y. F. A. Davis Co., Philadelphia.
318 pages, \$3.00.

This is a practical discussion free, on the one hand, from prolixity and the undue relation of case histories, on the other hand from false modesty or hypocrisy. The author shows a practical familiarity with the subject, obtained from extensive experience.

The Christian Church. Wm. McAfee Goodwin, L. B., C. S.,

Washington, author and publisher. 165 pages including index, \$1.50.

This book is not directly intended as a means of proselyting but, on the contrary is "a timely, impersonal, dispassionate, analytical, unanswerable discussion of the weaknesses and inconsistencies of the Christian Science Church organization." For example, the author holds that the refusal of that organization to receive or instruct one who has been a member of the Roman Catholic Church, is inconsistent with the general policies of all churches. None of the chapters deal directly with the conflict between the medical profession and Christian Scientists. A table states the number of C. S. mind-healing practitioners at 5,616, of whom 4,986 are

women. 5,090 of the total and 4,521 of the women are in the U. S. It is stated that the general rules of the C. S. Church require obedience to the civil law first, even if contrary to the regulations of the Church.

Jubilee Souvenir—1866-1916, Parke, Davis & Co.

Beginning with the drug stores of Dr. Samuel P. Duffield in Detroit, gradually supplemented with a small manufacturing plant for Galenicals, Hervey C. Parke joining the firm in 1866 and George S. Davis in 1867, the present large plant with its numerous American and foreign branches has gradually developed. Other early leaders were Theodore D. Buhl, Wm. M. Warren and H. A. Wetzel. The present directors are: Frank G. Ryan, president; David C. Whitney and Henry M. Campbell, vice-presidents; E. G. Swift, secretary and general manager; Jas. E. Bartlett, assistant secretary and treasurer; George Hargreaves, treasurer; N. H. F. McLeod, auditor, and Arthur H. Buhl, Chas. Stinchfeld, directors. Among the new drugs presented to the profession by this house are: viburnum, prunifolium, guarana, eucalyptus, coca, jaborandi, Janaica dogwood, saw palmetto, convallaria, pichi, cocillana, kamala and areca nuts. From a beginning with Galenicals and new crude drugs and available pharmacologic preparations, research work early established and gradually extended along new lines brought out the necessity of preparing active principles and for the physiologic standardization of Galenicals, and later of biologic products. Illustrations of the various branch establishments and a few of the main plant are given. Very few business firms or indeed institutions of any kind can look back on so long and successful a period of growth.

OUR CONTEMPORARIES

Inadequacy of Privately-Feed Medicine. Dr. Inez C. Philbrook, *Western Medical Review*, Sept. and *Medical Record*, Sept. 9, discusses the gradual disuse of clinical pathology, methods of specialists, as the practitioner becomes more busy in general medicine, and calls attention to the need of institutional care of many cases and to the advantages of salaried positions, with official recognition, leisure for research, etc. To a certain extent but in a very different spirit, Dr. Philbrook emphasizes the point recently made by Dr. Richard Cabot of Boston regarding hospital efficiency. In our experience, very few physicians are contented with

official, salaried positions, unless of a kind much above the average standard of professional prestige and income. Some years ago, while temporarily holding a position for a friend who was on a vacation, it seemed that the conditions were ideal and the position was extremely well fed if not very highly feed beyond maintenance. Yet a physician permanently engaged in the same work longed for "a thousand dollar private practice in a little village in Ohio." Except in certain lines of laboratory work—and without even this exception for the pioneers—the same general rule applies to medicine as to any other profession or business, namely that both from the standpoint of the individual and of society, the most is accomplished by the man who is his own master. Sometimes it even seems that the best professional success is made by those who are interested in practice not only scientifically and philanthropically, but who depend on it for a livelihood.

Medical Liberty pays the following compliment to physicians: "Vote for an imbecile, a nigger, or a yaller dog in preference to a medical beast who would arm himself with the law (the coward's club) and when death hovers over the brow of your dying wife or child refuse you the right to employ assistance outside the pill and powder gang of which he is the putrescent tool and procurer."

The Illinois Medical Journal, Oct., very appropriately places next to its Automobile Dept. a report of the Ford Co. Medical Society.

The Century, Oct., publishes an anticipatory ghost story entitled the Burned House, by Vincent O'Sullivan. The narrator, marooned in a small village, takes an evening walk and sees a man approach a house stealthily. In a few minutes, the house bursts into flames and a man and a woman are seen cut off from help. He notes that, though standing near, he feels no heat from the flames. Returning, he finds the man first seen hanging from a bridge and pulls up his body, which is as light as paper. Not unreasonably, the narrator is doubtful of the reality of what he has seen and on making inquiries is not surprised to learn that there was not and never had been a house where he saw it before and during the fire. Several years later, he returns to the same village and learns that in the meantime a man had built a house on that location for his son who had occupied it with his bride and both burned to death, a disappointed suitor having set fire to the house and committed suicide as related. We have no objection to the publication of circumstantial evidence to support the belief in ghosts or any other supernatural phenomenon.

We will even go so far as to say that we are perfectly willing to believe in ghosts or anything else of the sort, if proper evidence is submitted to us. Neither have we any objection to fiction as such. But stories of this sort, told in a realistic way undoubtedly tend to maintain superstitious beliefs. Readers naturally forget just where they have heard or read them and the impression of truth remains and fosters a misconception which prevents popular enlightenment.

It may be said that we are taking fiction too seriously but here is an occurrence of October 5 that may be something more than a coincidence; Mr. and Mrs. Chas. Van Etten, a young couple of Estey's Point near Ithaca, were shot and seriously wounded early in the morning by Andrew Stinard, a neighbor, whom they discovered in their house with a large quantity of kerosene. Stinard is supposed to have become insane. It is pertinent to inquire if he had read the latest issue of the Century.

TOPICS OF PUBLIC INTEREST

Rural Sanitation. The U. S. Public Health Service made surveys in 1914 showing that 1% of rural homes had sanitary toilets and that over 50% used contaminated water. In 1916, the same service is asking: Do you know that a sanitary water-closet is better than a privy? and: Do you know that it is a bad thing to drink polluted water? Or, if not, it is distributing the same kind of questions and most medical journals seem to fall for printing them.

Narcotic Law Decisions. The federal court, N. D., N. Y. (U. S. vs. Curtis, 229 Fed. 288) has ruled that both the prescriber and the dispenser of a prescription for an unusually and unreasonably large amount of a narcotic drug are guilty of an offense, unless the prescription indicates the reason and necessity for demanding such an amount. The federal court S. D., Ohio, Tucker vs. Williamson, holds that though a physician may under proper circumstances, distribute or dispense narcotic drugs to his patients, even one with a medical degree, may not be registered and allowed to send such drugs through the mail when most of his patients are not seen personally and when he bases most of his prescriptions on written statements of patients and prescribes for all of them alike.

Mailing Poisonous Drugs. It is probably not generally known that the U. S. Criminal Code, Section 217 absolutely

prohibits the sending of poisonous drugs, as well as poisonous insects and reptiles, explosives, dangerous chemicals, etc., through the mail. Probably this law has frequently been violated by physicians, scientists, collectors, etc., without malicious intent. Indeed, as most active drugs are poisonous in the quantities often prescribed and dispensed at once, probably a great many physicians have rendered themselves technically liable to prosecution, by mailing packages of tablets to patients. The Kern-Doremus bill (Senate 6834, House 17396) recently introduced, modifies this law somewhat as to allow poisonous drugs to be shipped if properly packed and authorizes the postmaster general to make the necessary regulations. We would therefore urge our readers not to send medicines that could be considered poisonous through the mails until this amendment becomes operative and to inquire at the post office as to the regulations for their packing. As we understand the further reading of the amendment, the mailing of poisonous animals, insects and reptiles, explosives and inflammable materials—including such as may explode or ignite though not intended for such purposes—is still prohibited absolutely. As physicians are often interested in scientific hobbies and as the art of medicine depends to some degree upon such animals and substances, this prohibition should be carefully noted. It is still more important to remember that disease germs, scabs, and apparently all alcoholic liquors, as well as dangerous substances of all kinds, are unmailable. Sealing and payment of first-class postage does not exempt. DOCTOR: DO NOT FAIL TO READ THIS ITEM CAREFULLY.

Bates Bill to Apply to Control of Poliomyelitis. The following bill is now in effect in N. Y. State. Physicians should note that it is an emergency measure, inevitably subject to contradictory interpretations and that, as no one seems to know exactly how poliomyelitis is transmitted, health officials may make demands which would not occur to the individual physician, however careful and conscientious. We therefore suggest that physicians in any way connected with a case that may, by any possibility be diagnosed as poliomyelitis, inquire of the local health officer as to exactly what is required of them.

“Section 1. Boards of health in cities and towns, or boards of selectmen in towns, may make such rules and regulations as are necessary and proper to check the spread of the disease known as infantile paralysis, and to cause its eradication by quarantine or otherwise.

“Section 2. The state department of health shall have the power to revoke or revise any such rule or regulation when

they are unnecessary or unreasonable, and all such rules or regulations shall not have force or effect after Jan. 15, 1917."

An Educational Lunch Room. The Public Health Dept. of N. Y. City maintains a lunch room for employes. Recently menus have been printed with price, weight of service, calories and grams of proteid. Some such plan as this might well be placed in operation in every city, somewhere. A few years ago, there was a general disposition on the part of dieteticians to teach, and of the medical profession to learn, quantitative dietetics by some simple rule. It is scarcely necessary to point out that there is no royal road to learning food dosage, any more than drug dosage. It is only by repeated, concrete examples that a working knowledge of dietetics can be learned. Under existing conditions, a practical knowledge of dietetics by the laity is of great potential economic value. For example, most fresh vegetables aside from seeds are considered as cheap and nutritious. On the contrary, they contain very little nutriment, as retailed they are often quite expensive in proportion to either their nutriment or aesthetic value. No particular one is necessary and, indeed, the whole group may be dispensed with. For a considerable period of the past summer, potatoes have been high but poor families have bought them under the belief that they were necessary. Weight for weight, allowing for skins, potatoes have about $\frac{1}{6}$ the caloric value of wheat flour and about $\frac{1}{9}$ the proteid value. Until introduced from America, about 300 years ago, they were unknown as an article of food except to the Indians. The price of potatoes even with flour at war prices, has been $\frac{3}{4}$ of the latter and has probably averaged $\frac{1}{2}$ for the whole summer. They do not even taste better than flour and rice, etc., similarly served as a vegetable. If there had been a popular realization that, in proportion to what was actually got in the way of nourishment, the current prices of potatoes had ranged about 3 times what they were worth, not only would there have been an enormous aggregate saving to consumers but the diminution of demand would automatically have reduced the price of potatoes to normal. We would be pleased to co-operate in a plan to establish educational lunch rooms—or rather to add the educational factor to existing lunch rooms—under proper auspices in this part of the state.

Bacteria in Commercial Bottled Waters. U. S. Dept, of Agriculture, Bulletin No. 369. Of 110 domestic springs, 47 were free from colon bacilli, 63 contained colon bacilli in samples of 10 c.c. or less. 59 of the 63 contained colon bacilli in samples of 1 c.c. which, by ordinary standards of health

authorities renders them suspicious in regard to typhoid. Positive findings in amounts of 0.1 c.c., .01 and .001 occurred in 49, 31 and 10 waters, respectively, each larger group including, of course, the smaller consecutive groups.

69 of the waters gave less than 100 total bacteria per c.c. after incubation at 37° for 2 days while 14 gave counts always greater than 1000 on 6 or more individual bottles. The highest count was 191,238. The results for 57 foreign waters were slightly better but two imported waters labeled "bacteriologically pure" gave averages of 1,250 and 482 total bacteria per c.c., respectively. 4 of 6 bottles of one showed colon bacilli in 10 c.c. quantities and all six of the second gave the same result. 4 of one and 5 of the other showed colon bacilli in amounts of 1 c.c. or less.

This is a most important subject. Thousands of people who can not speak of the Standard Oil Co. calmly, pay more for drinking water than they do for kerosene, some even more than they do for gasoline. They do not stop to consider that a highly popular spring, whose water is sold by thousands of gallons daily in various cities, must be either a subterranean river of too great bulk to allow either guarding of water shed or natural filtration, or else a purely fictitious trade name. Nor do they free themselves sufficiently from poetic associations with the word spring, to act on their own experience that the average spring, not rigorously cleaned and guarded, is usually a nasty source of drinking water. This journal has consistently followed the rule to accept no advertisements of potable waters which are not safe-guarded by reliable bacteriologic reports. Meantime, let us not forget the very practical point that the average city in our territory and even the average village that has established corporation water works, has, even without sand filtration, boiling or other methods of treatment, water that is on the whole vastly safer as well as very much cheaper than the average bottled table water, if the U. S. authorities can be relied upon.

The bacteria identified in the flora of bottled waters were: *B. coli*, *B. mycoides*, *B. paratyphosus*, strain B, *B. aerogenes*, *B. aurantiaeus*, *M. citreus*, *B. maritimum*, *B. ovale*, *B. prodigiosus*, *B. fluorescens liquifaciens*, *B. fl. non-liq.*, *B. subtilis*, and long-chain streptococci. Molds of the genera *trichoderma*, *penicillium*, *cladosporum*, *citromyces*, *fusarium*, *actinomyces* and *sporotrichum* were also isolated. Some are more or less pathogenic.

War Losses Among British Surgeons. The British Medical Journal states that over 400 have been killed or died in active service, at the front, in the year ending Aug. 1916.

The Cocaine Habit has been found to be quite common among British soldiers and drastic regulations have been made to check it.

Physical Condition of Volunteers. In mustering state guards into the U. S. service, the following percentages of rejections for physical reasons, have been made: Iowa, 8, Ill. 10, Mo. 12, Minn. 13, Mich. and Neb. 15, Kas. 16, Wis. 17, Ind. 21, Ohio over 30.

Centenarian. Samuel McKee, born in Ireland, Nov. 2, 1813, of Scotch ancestry, died in Tidioute, Pa., Oct. 3, one month short of 102 years. He had had 18 children.

Automobile Caution. Do not forget that the late fall is the time when most radiators burst from freezing. It is not the average but the minimum night temperature that counts. 10% of denatured alcohol will protect to about 25° F. and is usually sufficient in this climate till early in December. Remember, too that this is the season when it is most important to have your starter working and when it is most likely to get out of order. Lighting imposes more strain on the battery in the short days and there is less high-speed running to charge the battery. A weak battery may freeze. Have your battery inspected, if necessary overhauled and expect to have to get it recharged from a station once or twice during the winter. Some automobilists fail to realize that a starter is merely a substitute for the strong arm in spinning a motor that does not start easily under any conditions. In most starting and lighting equipments, the motor is cranked on the magneto, which is not quite so quick as a battery. The starter, like a strong mechanic, may be able to get the engine running under unfavorable conditions but, to secure good results, it is just as necessary to have the spark plugs clean and properly adjusted, to have all wiring connections bright and tight, to enrich the mixture by choking or priming and by setting the carburetor adjustment for cold weather, as in a hand cranked car.

Niagara Co. Tuberculosis Hospital. The supervisors have employed Chester R. Phelps of Niagara Falls as architect. He has made plans for four other county buildings. The committee, after an investigation tour of the state decided that the Poughkeepsie and Rochester hospitals were best adapted as models. An additional strip of land has been bought to afford an entrance to the site for the hospital, near Lockport.

The Plattsburg Military Training Camp closed October 12. 12,000 men received training in five periods, this summer.

Army Medical Corps. Examinations will be held early in January for appointment of first lieutenants. There are 228 vacancies. Examinations will be held at various stations, to suit the convenience of candidates. Application should be made to the Surgeon General, U. S. Army, Washington, D. C.

Popular Lectures on Medical Topics. The B. Merrill Ricketts Experimental Surgical Research Laboratory of Cincinnati, will give a series of lectures on Saturday evenings, in Cincinnati. This precedent may well be followed by other cities. It may be pointed out that practically all friction in regard to such courses is avoided by the simple expedient of eliminating local talent.

The Balkan Relief Fund has been established with Rev. Frederick Lynch, Editor of The Christian Work, 70 Fifth Ave., N. Y., as treasurer. A ship will soon sail, loaded with supplies. It is pointed out that, while Belgians have been well fed, 200,000 Albanians have died of starvation on account of the present war. Wm. W. Howard, lately returned from his third trip to the war zone, reports corn at \$50 a bushel, flour at \$70 a sack, macaroni at \$5 a pound. The distress is great and there should be no likes and dislikes in our charity.

Professional Pride. A writer in an exchange tells of a call from a Radiographer, whom he found a most interesting guest and treated as a distinguished colleague, until in the course of the conversation, it developed that he was merely a photographic expert and not a medical graduate, when his entertainer had no further use for him. It strikes us that this is carrying professional esprit de corps too far. Shall we adopt the same course with chemists and bacteriologists with Ph. D. degrees, which are a good deal harder to get than M. D.'s. Of course, if the guest had deliberately misrepresented himself in any way, even implicitly by claiming for a mere assistant the courtesies due a worker of standing, the case would have been different but this does not seem to have been the case. Neither medical nor premedical courses could afford a basis for roentgenology, except for workers of recent date and except in regard to certain points in anatomy and physiology which, it must be confessed, do not apply very directly or even accurately to roentgenologic study. The roentgenologist with a medical degree has the legal right to

supplement his examinations with medical or surgical therapeutics but he seldom does so in any direct sense. As a matter of fact, roentgenology, with or without a medical degree, is largely acquired by informal study of a personal nature. It is one thing to regard askance the man who engages in the practice of medicine without formal training and license, quite another to place in the same category the earnest workers along lines of science utilized by medicine, and who feel that the limitation of their work does not demand the securing of a medical degree.

Advance in Cost for City Patients. The Buffalo councilmen have been petitioned by the hospitals for an increase in rates from \$7 to \$9.80. Dr. R. R. Ross of the General Hospital presented statistics showing that the actual cost now ranges from \$12.46 to \$14.10, in the independent hospitals, and is over \$12 in the Municipal Hospital and over \$13 at the J. N. Adam Memorial Hospital.

Chautauqua Co. Tuberculosis Hospital Site. By will of the late Mrs. Elizabeth M. Newton of Fredonia, \$150,000 was left for the establishment of a hospital and a site of 180 acres was favorably considered by the trustees. This site is the Pierson farm on upper Cassadaga Lake, the price being \$19,999. At a hearing before the Deputy State Commissioner of Health, Dr. L. R. Williams of Albany, and the Fredonia town Health Officer, Dr. V. M. Griswold, Oct. 13, opposition to the site was made by representatives of the Lily Dale Assembly Assn. It may be stated that the level of this lake is 1305 feet above sea level, the ground rising rapidly along its shores to 1400 and even 1500 ft. The lake is about $\frac{1}{2}$ mile wide and not quite a mile long, connecting with two other lakes so that the combined lake and swamp area is about $\frac{3}{4}$ mile in width and not quite 2 miles in length, with a projection of flat land about $\frac{3}{4}$ mile square, into the eastern side of this lake area, on which is located the Lily Dale summer colony. These lakes drain into the Sassadag Creek, and ultimately into the Allegany and Ohio Rivers, the grade for the first 30 or 40 miles being on the average about 1 ft. to the mile. It will be noted that, except for the swampy ground in the vicinity and the chances of pollution of the lake from its steep but not very extensive water-shed, the site is almost ideal from the standpoint of its prospective inmates. Whether, from the standpoint of its neighbors, any appreciable danger exists, should be impartially determined, remembering that the lake lacks, on the one hand, the volume and extent favoring self-purification and, on the other hand, the rapid change of water noted in many small lakes. It should be borne in mind

that in the establishment of County Tuberculosis Hospitals, we are building for 50 years ahead. We personally hold the opinion that if tuberculosis can be universally and efficiently segregated, the disease can be practically stamped out in this time. Thus, even from the humanitarian standpoint in the long run, the question of whether a site where tuberculous patients are assembled is a danger to the neighborhood is more important than whether it is well adapted to the care of its prospective inmates. The fact that the conveyance of tubercle bacilli cannot usually be traced to a definite source, increases rather than diminishes the need of caution in this respect. It is still subjudice whether there is such a thing as closed tuberculosis from the sanitary standpoint. The theory of elimination of bacilli by the faeces is not absolutely demonstrated but has recently received substantial support. We would not go so far as to express the opinion that a tuberculosis hospital, especially for incipient cases, located on Cassadaga Lake, would endanger the permanent and summer residents of the vicinity but a good many persons would undoubtedly prefer to take no chances and we frankly admit being in this "safety first" group.

After-Care for Paralysed Children. The State Dept. of Health is formulating a plan to provide prosthetic apparatus, professional supervision and even transportation in needy cases. Up to Oct. 1, 3,301 cases of poliomyelitis have occurred in the state outside of N. Y.-City. 589 have died, most of the remainder will have some loss of muscular power.

Christian Science Treatment Legal. The Court of Appeals, at Albany, in passing upon a case originally brought up by the Medical Society of the Co. of N. Y. in 1911, reverses the decision of a lower court which imposed a fine of \$100 upon a healer, remits the fine and orders a new trial. The opinion expressed is that practicing medicine is not in itself a crime at common law and that the statute requiring license of practitioners is itself explicitly qualified by the statement that it shall not be construed to affect the practice of the tenets of any church. However, it does not seem to us that this verdict can be heralded as a great triumph over the medical profession since the opinion proceeds:

"We think the exception in the statute in this state is broad enough to permit offering prayer for the healing of disease in accordance with the recognized tenets of the Christian Science church. . . .

"A person should not be allowed to assume to practice the tenets of the Christian Science or any other church as a shield to cover a business undertaking. When a person

claims to be practicing the religious tenets of any church, particularly where compensation is taken therefor and the practice is apart from a church edifice or the sanctity of the home of the applicant, the question whether such person is within the exception should be left to a jury as a question of fact."

Much as we may feel that the sick and injured should be assured of the best and most highly trained assistance, especially when, by reason of infancy or any other cause, they are incapable of forming mature opinions of their own, we can scarcely object to the exercise of the right of a personal choice. As we understand the animus of the original suit, it was not to establish the privilege of the medical profession to force its attendance on those unwilling to receive it.

Poliomyelitis. There is a rather vague preliminary report that necropsies at Johns Hopkins have shown characteristic intestinal lesions. This indicates that the disease must be viewed from a different standpoint but does not, thus far, explain the peculiar inconsistencies of its transmission.

Increase in Price of Milk. Grade A pasteurized milk 10 cents; grade B, 9 cents; Larkin Jersey raw milk and Pine Grove Farm certified, 18 cents a quart, announced by Q. C. Dairy Co., Buffalo, effective Oct. 23. In this connection it may be remarked that the State Health Dept. has recently argued against compulsory pasteurization as tending to limit the milk supply to large dealers and as acting mainly to prevent souring.

The N. Y. Skin and Cancer Hospital announces a course of clinical lectures on diseases of the skin by Dr. L. Duncan Bulkley, assisted by the attending staff. Lectures will be held in the Out-Patient Hall of the Hospital, Wednesday afternoons, at 4:15 o'clock, beginning Nov. 1. The medical profession will be admitted on presentation of their cards.

Hospital for Springville. The will of Bertrand Chaffee, who died Oct. 3, provides that, after the death of his widow, the family home shall pass to the village as the site of the Bertrand Chaffee Memorial Hospital.

Poliomyelitis Epidemic. The Literary Digest publishes at the front of its issue of Oct. 14, a chart showing the curve of incidence and mortality for N. Y. City. From June 5 to 20, the case reports varied from 0 to 2 or 3 a day. Till July 11, the curve rose sharply to 195 and then fell to 80 on July 24.

It reached its maximum with 217 cases Aug. 3 and then fell gradually to 10 cases Oct. 2. The death curve is more regular, reached the maximum of 57 Aug. 10 and, since Sept. 8, has been 10 or a few less a day.

Poliomyelitis Case in Albion. The first case in Orleans Co. developed Oct. 16, in a boy aged 6, attending the Central Public School which has been ordered closed for 2 weeks.

National Licenses for Medical Practice. 10 candidates took the examination of the voluntary national board previously described, on Oct. 16.

Agricultural Use of Gas Helmets. Threshers in Lancaster Co., Pa., have adopted a respirator helmet similar to those used in the war zone, to protect from dust.

Gasoline Tanks. Automatic pumps have been found by investigation of the federal authorities to give short measure in about 80% of cases.

Standard Names for Automobile Parts have been adopted by the American Society of Automobile Engineers. 19 divisions have been recognized with 70 subdivisions, the total technical vocabulary being about 700 terms. This fact should be remembered by those who claim that the average mechanic knows only a thousand words in all.

A recent investigation made by the U. S. Public Health Service in connection with studies of rural school children showed that 49.3 per cent had defective teeth, 21.1 per cent had two or more missing teeth, and only 16.9 per cent had had dental attention. Over 14 per cent never used a tooth brush, 58.2 per cent used one occasionally and only 27.4 per cent used one daily.

The Trend Toward Decimal Systems. We have just received an English exchange bearing a postage stamp marked "Three Half Pence." This is a straw which shows which way the wind blows. It has already been formally suggested in England that the dollar be adopted as the monetary unit, as it is already familiar both in financial circles and popularly. "I'll bet you a dollar" has long been current in England. In most of the countries of Europe south of Holland, Germany and Austria, the franc (or its equivalent passing current in all countries of the corresponding league) is practically subdivided, not into hundredths but into twentieths, practically equal to our cent. The German mark is, at pres-

ent, of almost exactly the same value as the franc so that the 5 pfennig piece is also practically a cent. Luxemburg, which has for many years legalized both German and French coinage and has none of its own gets around the difficulty by thinking in American cents—of course, without realizing the fact—and making change between the two coinages just as we would do, thinking of the mark as a quarter and the franc as a twenty-cent piece. Most of the other countries of Europe have decimal monetary systems easily convertible into dollars and cents.

Meantime, the war has familiarized England and its colonies with the metric system and has clearly shown the advantages even in military preparedness due to its use. England and the U. S. are the only civilized countries of any importance that have not already long used this system and it is almost universally employed in all sciences, even applied, in the U. S., up to the point of commercial dealings. A little progressiveness and co-operative spirit at the close of the war ought to bring about international unity in the adoption of decimal systems and, aside from the loss of human life and antiquities, such a standardization of measures would probably result in increased efficiency which would balance the material losses of the war.

Milk Code for Buffalo. A hearing was held Oct. 17 and another will be held Nov. 3, or held subject to further consideration. It has been provisionally agreed, to meet the demands of the milkmen that bacterial counts shall not be published; that pasteurization shall not be compulsory; that skim milk shall not be labeled; and that ice shall not be required on wagons making night deliveries. It was stated that some housewives considered a low bacterial count as indicating that they were not receiving their money's worth.

Milk Prices in Dunkirk. The Dunkirk Milk Producers' Assn., supplying 2500-3000 quarts a day out of a total of 4,000-4,200, has increased the price paid to producers from 16.5-18.5 cents a gallon to a flat rate of 5 cents a quart for May, June and July, when it will be 4.5. Retail prices are 9 cents a quart, 5 cents a pint. (Note: A considerable factor in the difference between wholesale and retail prices is the expense of bottles which have to be renewed about once a month).

Civil Service Commission. Examinations for the State, County and Village Service, Dec. 2, 1916. Application blanks will not be sent out by mail after Nov. 20. Applica-

tion blanks received at the office of the Commission after Nov. 22, will not be accepted.

188. Woman Physician, (Regular or Homeopathic) State Hospitals and Institutions. \$1000 to \$1500 and maintenance. Candidates must be licensed medical practitioners of the State of New York, and must have had at least one year's experience on the medical staff of a hospital or three years' experience in the general practice of medicine. Subjects of examination and relative weights: Anatomy, physiology, materia medica, therapeutics, chemistry, obstetrics, surgery, theory and practice, 7; experience, education and personal qualifications, 3. Candidates may be summoned for an interview with the examiners. Open to non-residents.

211. Physician, State Prisons and Reformatories. Salary \$2000 without maintenance. Examination open only to men who are licensed medical practitioners in this State, who are not less than 25 years of age and who have had at least three years' practice. Subjects of examination and relative weights: Written examination, covering anatomy, physiology, chemistry, materia medica, therapeutics, surgery, theory and practice, 4; laboratory work, prison sanitation and hygiene, 2; education, experience and personal qualifications, 4. Candidates who attain at least 60 per cent in the written examination may be summoned before the examining committee in connection with the rating of the last mentioned subject. It is expected that one appointment will be made at Sing Sing Prison in the near future.

212. Deputy Medical Examiner, Bureau of Deportation, State Hospital Commission. \$3500. Applicants must be physicians licensed to practice in New York State, and with not less than five years' experience in the practice of medicine. Minimum age limit 30 years. This position was established in accordance with the provisions of Chapter 121, Laws of 1912, to which reference should be made for a description of the functions of the Bureau of Deportation. Applicants will be expected to have a knowledge of the Insanity Law, and experience in the care and treatment of the committed or alleged insane in the New York State Hospitals or elsewhere, or knowledge and experience of the problem of the alien insane, and their deportation. Subject of examination and relative weights: Questions relative to the duties of the position as outlined above, 4; experience and personal qualifications, 6. Candidates may be summoned for an interview with the examiners.

213. Nurse, State Commission for the Blind. Open to men and women. Salary \$1200. Candidates must be graduates of a nurse training school registered by the State Education Department. This examination is intended to provide a list

of eligibles for the position of eye nurse, and candidates must have had special training or experience as such. No written examination will be given but candidates will be rated on their age, education, preliminary training and experience as determined from the sworn statements in their applications and by inquiries which the Commission may direct to proper sources among previous employers, etc. An oral interview may also be given. Open to non-residents and non-citizens.

214. Trained Nurse, State Institutions. Open to men and women, \$420 to \$600 and maintenance. Candidates must be graduates of a nurse training school registered by the State Education Department. This examination is intended to provide a list of eligibles for the positions of trained nurse, chief nurse and hospital matron in the various State institutions, excepting State hospitals for the insane. No written examination will be given but candidates will be rated on their age, education, preliminary training, and experience, as determined from the sworn statements in their applications and by inquiries which the Commission may direct to proper sources among previous employers, etc. Candidates may be summoned for an interview with the examiners. Open to non-residents and non-citizens.

215. Matron, (Reception House), State Reformatory Institutions for Females. \$720 to \$840 and maintenance. Subjects of examination and relative weights: Letter-writing, 1; arithmetic (fundamental operations, and United States money), 1; questions relating to the duties of the position, 3; experience, education and personal qualifications, 5. Candidates should in their applications, submit a careful review of their past experience, with special emphasis on matters tending to specially qualify for this position, the duties of which are such as to require a woman of strong physique and personality and a good disciplinarian. Candidates may be summoned for an interview with the examiners. An applicant who is at present, or has been previously, employed at one of the institutions for females at Albion, Bedford or Hudson must file with her application a letter of recommendation from the present Superintendent of the Institution where last employed. One appointment is expected at the Institution at Bedford Hills.

216. Matron, (Cottage), State Reformatory Institutions for Females. \$480 to \$600 and maintenance. Subjects of examination and relative weights: Letter-writing, 1; arithmetic (fundamental operations, and United States money), 1; questions relating to the duties of the position, 3; experience, education and personal qualifications, 5. Candidates should in their applications, submit a careful review of their past experience, with special emphasis on matters tending to

qualify for this position. An applicant who is at present, or has been previously employed at one of the institutions for females at Albion, Bedford or Hudson must file with her application a letter of recommendation from the present Superintendent of the Institution where last employed.

223. Dentist, Monroe County Service. Open to men only. Candidates must be graduates of a recognized dental college, and eligible to enter the State licensing examination. They will not be required to appear for written examination but they will be rated on education, experience and personal qualifications as set forth in their formal applications,, and as determined from inquiries which the Commission may direct to proper sources of information. A vacancy exists at the Iola Sanatorium at \$60 per month.

Poliomyelitis. For the week ending Oct. 21, the number of cases in N. Y. State, exclusive of N. Y. City, was 53, as compared with 86 for the week ending Oct. 14 and 127 for the week ending Oct. 7.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The regular meeting of the **Medical Society of the County of Erie** was held October 16th, 1916, at 8:45 p. m. in the Buffalo Medical College. An unusually large number of members were present to hear the addresses of officers of the Medical Society of the State of New York by Dr. Martin B. Tinker, Dr. Floyd M. Crandall and James Taylor Lewis, Esq., President, Secretary and Attorney for the State Society respectively. Dr. M. N. Brown of Rochester, President of the Seventh District Branch was likewise present as a guest of the Society and delivered a brief address.

It was decidedly a State Society meeting, all the addresses were eloquent and to the point each one treating his subject in an admirable manner and commanding the closest attention of every member present.

At the conclusion of the addresses a hearty vote of thanks was tendered to all the speakers of the evening, who had come a long distance in order to become personally acquainted with the Society.

Nominations of officers for the ensuing year to be voted upon at the annual meeting in December were made as follows:

President, Dr. Irving W. Potter.

First Vice-President, Dr. George M. Cott.

Second Vice-President, Dr. James E. King.

Secretary, Dr. Franklin C. Gram.

Treasurer, Dr. Albert T. Lytle.

Censors, Dr. John D. Bonnar, Dr. Francis E. Froneczak, Dr. Arthur G. Bennett, Dr. A. D. Carpenter, Dr. Frank A. Valente.

Chairman Committee on Legislation, Dr. Harvey R. Gaylord.

Chairman Committee on Public Health, Dr. Nelson G. Bissell.

Chairman Committee on Membership, Dr. William F. Jacobs.

Chairman Committee on Economics, Dr. John V. Woodruff.

Delegates to the State Society, Dr. Charles G. Stockton, Dr. Irving W. Potter, Dr. A. W. Hurd, Dr. E. L. Frost, Dr. Edith R. Hatch, Dr. Grover W. Wende, Dr. Henry R. Hopkins, Dr. A. J. Colton, Dr. S. A. Dunham.

The following 37 candidates were elected to membership: Reinstatement of Dr. E. A. D. Clark and Dr. F. G. Walz. Elected to membership: Drs. O. Von Renner, J. Heller, A. L. Barone, A. W. Thompson, G. E. Stanbro, W. R. Coakley, J. Kiebala, F. A. Hayes, J. J. Conlon, J. F. Healy, F. H. Long, C. C. Panzarella, M. E. Bork, H. B. Johnson, C. E. Pringle, V. Reinstein, S. H. Levy, E. H. Lormor, H. Fairbanks, H. Muscato, A. H. Aaron, H. C. Hoffman, A. Burkell, L. C. Sampson, R. DeGraff, R. E. Shaver, P. S. Pearsons, A. F. Glaser, H. K. Hardy, A. H. Vogt, A. Horwitz, W. O. Hill, J. Brumberg, R. C. Miller.

Dr. Grover W. Wende offered the following resolution, which was referred to the Council:

Resolved: That the Medical Society of the County of Erie believes that the matter of defense from malpractice suits is of vital importance to the various members of the State Society and that while that defense has until the present time been conducted in a most satisfactory manner, a wise forethought should lead us to provide for contingencies which may reasonably be anticipated. We believe that additional

counsel should be employed and trained in this highly special form of legal practice, and further

That inasmuch as the present revenues of the State Society are not sufficient to provide for this greatly needed progress we believe that the annual dues of the members of the State Society should be increased to four dollars per year.

On behalf of Dr. Lucien Howe, who was unable to be present, Dr. John V. Woodruff presented the following resolution, which was also referred to the Council:

Resolved: That the Committee on Economics be requested to report at its next meeting on the possibility of providing small but substantial relief to physicians who have been members in good standing of this Society for more than fifteen years, and who have become incapacitated from active work because of age, illness or other causes.

Moreover, if such assistance seems possible, the Committee is hereby directed to present a plan to provide for this in accordance with the resources of the Society.

Dr. Benedict invited all the members of the Society to attend the annual meeting of the Central New York Medical Society, which was to be held in Buffalo on October 19th, 1916.

Dr. Benedict offered the following resolution, which was seconded by Dr. Wende and carried.

Resolved: The Secretary be empowered to issue certificates to such members who wish to join the Central Medical Society of New York.

The Society then adjourned after which a collation was served in the College Library.

FRANKLIN C. GRAM,
Secretary.

47th Annual Meeting **American Medical Editors' Association**, New York City, Oct. 25 and 26. Annual banquet Thursday evening. Literary program:

President's Address, Edward C. Register, M. D.

"Latin and Greek as Prerequisites of the Study of Medicine," A. Jacobi, M. D. (By invitation).

"The Responsibility of American Journalism," Geo. M. Piersol, M. D. (American Journal of Medical Sciences).

"The Indexing of Scientific Journals," Anna L. von der Osten. (By invitation). (Rockefeller Institute for Medical Research).

"Book Reviews in Medical Journals," H. S. Baketel, M. D. (Medical Times).

"Editorial Individuality," Ira S. Wile, M. D. (American Medicine).

"The Special Journal Versus—The General Medical Jour-

nal," William Benham Snow, M. D. (Journal of Electro Therapeutics and Radiology).

"The Editor's Prerogative in Editing Original Contributions," H. Edwin Lewis, M. D. (American Medicine).

"The Medical Journals and the Materia Medica," Francis Edward Stewart, M. D. (Practical Druggist).

"The Relationship between Medical Journals of the Day," W. A. Jones, M. D. (Journal-Lancet).

"The Medical Journal and its Sphere in Medical Progress," A. S. Burdick, M. D. (American Journal Clinical Medicine).

"Independence in Medical Journalism," Llewellyn Eliot, M. D. (Va. Medical Semi Monthly).

"The Function of a State Medical Association Journal," Geo. W. Kosmak, M. D. (Bulletin Lying-in-Hospital).

"Editorial Collaborator," Samuel F. Brothers, M. D., Brooklyn, N. Y.

"Some Suggestions as to Practical Details of Medical Journalism," A. L. Benedict, M. D. (Buffalo Medical Journal).

Special Symposium. "The duty of the medical editor in harmonizing the doctor with Medical Legislation and its administration, and in securing his aid, co-operation and support in framing and enforcing proper laws, with especial reference to anti narcotic legislation," Hon. C. M. Collins, (Judge of the Court of Special Sessions); Hon. John F. Freschi, (Judge of the Court of Special Sessions); Mr. B. C. Keith, (Chief of the Miscellaneous Division of Internal Revenue Bureau, Washington, D. C.); Prof. Reynolds Webb Wilcox, (Chairman of the Narcotic Legislative Committee. Society of Medical Jurisprudence); Dr. John D. Davin, (Representative of the Federation of Medical Economic Leagues); Mr. Burdett G. Lewis, (Commissioner of Corrections of the City of N. Y.); Ernest S. Bishop, A. B., M. D., (Professor Clinical Medicine, N. Y. Polyclinic and President of the Medical Board of the Dept. of Corrections of the City of N. Y.)

Officers, 1915-16: President, Edward C. Register, M. D., Charlotte, N. C., (Editor, Charlotte Medical Journal). First Vice-President, W. A. Jones, M. D., Minneapolis, Minn., (Editor, Journal-Lancet). Second Vice-President, G. M. Piersol, M. D., Philadelphia, Pa., (Editor, American Journal of Medical Sciences). Secretary and Treasurer, J. MacDonald, Jr., M. D., New York, (Mgr. Editor, American Journal of Surgery).

Executive Committee: Dr. C. F. Taylor, Philadelphia, (Medical World); Dr. John C. MacEvitt, New York, N. Y., (N. Y. State Journal of Medicine); Dr. A. S. Burdick, Chi-

cago, Ill., (American Journal Clinical Medicine); Dr. J. MacDonald, Jr., New York, (American Journal of Surgery).

Publication Committee: Dr. H. Edwin Lewis, Chairman and Editor, New York, (American Medicine); Dr. C. E. de M. Sajous, Philadelphia, Pa., (Editor N. Y. Medical Journal); Dr. Chas. Wood Fassett, Kansas City, Mo., (Editor, Medical Herald); Dr. Robert M. Green, Boston, Mass., (Editor, Boston Medical Journal); Dr. J. MacDonald, Jr., Secretary, New York, (American Journal of Surgery).

Local Committee: Dr. Thomas L. Stedman, Chairman, New York, (Medical Record); Dr. R. H. Sayre, New York, (New York Medical Journal); Dr. Brooks H. Wells, New York, (American Journal Obstetrics); Dr. Frank C. Lewis, New York, (International Journal Surgery); Dr. Ira S. Wile, New York, (American Medicine).

The Elmira Academy of Medicine held its regular meeting Oct. 4. Dr. R. G. Loop gave a paper on Specific Immunization against Tuberculosis and Dr. B. G. Voorhes on Headache. Officers: President, LaRue Colegrove; Secretary, E. T. Bush.

The Medical Society of the County of Wyoming met in Warsaw, Oct. 10. The following officers were elected: President, L. H. Humphrey, Silver Springs; Vice-President, L. E. Stage, Bliss; Secretary and Treasurer, J. F. Crawford, Warsaw.

The Rochester Academy of Medicine, Section II, met Oct. 11. A symposium on Drainage vs. Removal of the Gall Bladder was presented by E. W. Mulligan, F. W. Zimmer, J. W. Magill, C. R. Barber, H. T. Williams, and W. B. Jones, with summing up by Donald Guthrie of Sayre, Pa. Officers: Chas. W. Hennington, Chairman; Wm. I. Dean, Secretary.

The Medical Society of the County of Monroe met Oct. 17. Henry H. Hazen of Washington gave an illustrated lecture on Skin Cancers. A dinner was given in his honor before the meeting. Chas. W. Hennington, Secretary.

The Buffalo Academy of Medicine meets weekly, except on special notice to the contrary, every Wednesday evening, in Orpheus Hall, excepting the last Wednesday in Dec., from Oct. to May inclusive. Out-of-town guests are welcome and should make their presence known to some member in order that they may be presented to the Academy and accorded the privilege of the floor. Residents of places outside of Buffalo but near enough so that frequent attendance is possible, may secure non-resident membership at a special rate. The

Academy meets, in rotation, as sections of Surgery, Medicine, Obstetrics including Gynaecology, and Pathology, all members being ipso facto members of all sections. The officers for the year 1916-17 are: Pres. Lawrence Hendee; Sec. Herbert A. Smith; Treas. B. F. Schreiner; Trustees, Earl P. Lothrop, Harry R. Trick and W. W. Plummer. Section of Medicine: Chairman Edward A. Sharp; Secretary Harry Mead. Surgery: Chairman Francis O'Gorman; Sec. James B. Cross. Obstetrics and Gynaecology: Chairman Irving W. Potter; Sec. H. K. De Groat. Pathology: Chairman Wm. F. Jacobs; Sec. Wm. G. Bissell. The Section Chairmen are vice-presidents of the Academy. The foregoing officers with the president for the preceding year, James W. Putnam, comprise the Council.

The Section of Surgery met Oct. 3, (Tuesday) when Dr. Joseph C. Bloodgood of Baltimore presented a lantern slide lecture on The Cancer Problem Based upon Recent Experiences.

The first stated meeting of the Academy was held Oct. 11, under the auspices of the Section of Medicine, Henry J. Mulford presenting a paper on Child Analysis. A collation was served at the close of the meeting.

The Section of Obstetrics and Gynaecology met Oct. 18. The program was as follows:

Analgesia and Anaesthesia in Obstetrics, Dr. John H. Evans. Discussion by Drs. Pearson, Getman and Trick.

Posterior Positions and Their Treatment, Dr. H. C. McDowell. Discussion by Drs. Goldsborough and W. G. Taylor.

Pregnancy in the Tubercular, Dr. E. A. D. Clarke. Discussion by Drs. Pryor and Geo. J. Eckel.

Central New York Medical Association. The 48th annual meeting of the Central N. Y. Medical Association was called to order by President A. L. Benedict at 10.35 a. m, on 10-19, '16, at the University Club, Buffalo, N. Y.

In the absence of the secretary, Dr. J. J. Buettner, Dr. Robert Burns of Syracuse was appointed secretary pro tem.

The minutes of the previous meeting were read and no objections thereto. President Benedict suggested that it appear in the minutes that there was no competition between the N. Y. State Journal and the Buffalo Medical Journal regarding the printing of the proceedings of the Society, but inasmuch as the N. Y. State Journal had expressed its inability to print them, the Buffalo Medical Journal had therefore been designated for the work.

The presidential address by Dr. A. L. Benedict was entitled "Highways." The president mentioned the policy of his predecessors in dwelling upon some general subject in

their addresses, and in this one he referred both humorously and seriously to the condition of the roadways in N. Y. State.

In the absence of the treasurer, Dr. F. F. Laurie, the president appointed Drs. Edward Clark and O. W. Mead to audit the treasurer's report.

The first scientific paper was by Dr. C. W. Hennington of Rochester, N. Y., entitled "Gall bladder surgery, shall we drain or remove?"

The discussion was opened by Dr. Thew Wright of Buffalo. Remarks were made by Dr. W. A. Groat of Syracuse. The discussion was closed by Dr. Hennington.

The president called upon the credential committee, but as none of the members were present, he designated Drs. Crego, Wright and Jones to act pro tem.

The second scientific paper by Dr. H. A. Bray of Ray Brook was entitled "Some observations relative to the breath sounds in incipient tuberculosis." This paper was illustrated by lantern slide demonstrations by Dr. Frank H. Hunt of Ray Brook. Discussion on the topic was opened by Drs. J. N. Pryor, and Delancey Rochester of Buffalo. The discussion was closed by Dr. Bray.

Dr. Howe of Buffalo was granted the floor, and in a graceful speech he extended a cordial invitation to all members of the society, and especially out of town members, to be guests at a luncheon at his home at noon. The invitation was accepted.

The third scientific paper was on the general subject of "Infantile paralysis." This was divided into three parts—

(a) "Attitude of the family physician during the epidemic," by Dr. Irving M. Snow, Buffalo;

(b) "Differential diagnosis and treatment," by Dr. E. A. Shoop, Buffalo;

(c) "Surgical treatment," by Dr. W. W. Plummer, Buffalo.

The president ruled that discussions be limited to 10 minutes. Parts (a) and (b) of above were covered when adjournment was taken to luncheon at 1.05 p. m.

The afternoon session was opened with Pres. Benedict in the chair at 2.20 o'clock.

The general subject of "Infantile paralysis" was continued and part (c) was finished. The discussion of the general topic was then opened by Dr. Crego, with remarks by Drs. Rochester and Clark. Motion by Dr. Bartoo that Dr. Clark be granted an extension of time for discussion was seconded and carried. Discussion was closed by Drs. Sharp and Plummer.

Dr. Henry Buswell was granted the floor and reported

some of the findings of the John Hopkins Pathological Society relative to this disease.

The fourth scientific paper by Dr. C. F. Hooper of Cleveland was entitled "The origin and distribution of bile pigment in the body and its diagnostic significance." The discussion was opened by Drs. Stockton, Buswell and Russell of Buffalo. Discussion closed by Dr. Hooper.

The fifth scientific paper by Dr. Dean Lewis of Chicago on "The hypophysis and its relation to general medicine," was illustrated by lantern slides by the essayist.

The sixth scientific paper by Dr. A. Stengel of Philadelphia was entitled "The diagnosis and some aspects of treatment of chronic nephritis."

Motion by Dr. Crego that discussion of above papers be omitted was seconded and carried.

The seventh scientific paper by Dr. Crego of Buffalo on "Treatment of disorders of sleep" was read by title.

The eighth scientific portion of the program by Dr. John M. Flint of New Haven, consisted of a talk on "Experiences at a base hospital in France. The speaker illustrated his remarks with lantern slide pictures.

The auditors, Drs. Edward Clark and O. M. Mead, reported treasurer's report correct.

Motion by Dr. Geo. F. Cott that a vote of thanks be extended by the association to the out of town essayists for their generous participation in the program, and for the interesting and instructive presentation of their respective subjects, was seconded and carried.

Motion by Dr. Clark of Skaneateles that the society express to Dr. and Mrs. Howe their hearty appreciation of the delightful entertainment afforded by them, and that the secretary be instructed to notify them in writing. Seconded and carried.

While at Dr. Howe's residence the members were addressed by Col. Kean, M. D., of the U. S. army on the need of establishing Red Cross Base Hospitals in various cities of the U. S.

The secretary pro tem. was directed by the president to convey to Secretary J. J. Buettner the deepest sympathy of the association on account of the serious illness of his wife.

BUSINESS SESSION

Motion by Dr. Crego that Dr. L. Heazlitt of Auburn be nominated for president of the society for the ensuing year. Seconded and carried.

Motion by Dr. Groat that the secretary cast an unanimous ballot for Dr. Heazlitt for president. Seconded and carried. The president ordered such ballot cast.

Motion by Dr. Breese of Syracuse that Dr. J. J. Buettner

of Syracuse by nominated for first vice-president. Seconded and carried.

Motion by Dr. Groat that the secretary cast an unanimous ballot for Dr. Buettner for first vice-president. Seconded and carried. The president declared such ballot cast.

Motion by Dr. Crego that Dr. C. W. Hennington of Rochester be nominated for second vice-president. Seconded and carried.

Motion made by Dr. Price that the secretary cast an unanimous ballot for Dr. Hennington for second vice-president. Seconded and carried. The president reported such ballot cast.

Motion by Dr. Price that Dr. Robt. Burns of Syracuse be nominated for secretary for the ensuing year. Seconded and carried.

Motion by Dr. Clark of Skaneateles that the president cast an unanimous ballot for Dr. Burns for secretary. Seconded and carried. The president ordered such ballot cast.

Motion by Dr. Breese that Dr. Laurie of Auburn be nominated for treasurer for the ensuing year. Seconded and carried.

Motion made that the secretary cast an unanimous ballot for Dr. Laurie for treasurer. Seconded and carried. The president reported such ballot cast.

Motion by Dr. Crego that the treasurer pro tem., Dr. J. D. Bonnar of Buffalo be instructed to pay the lantern slide man \$10 and the club steward \$5. Seconded and carried.

The temporary membership committee reported names of Drs. J. D. Bonnar and Roland Meizenbach for members of the society.

Motion by Dr. Price that they both be elected to membership. Seconded and carried.

The president read a letter from the Auburn Academy of Medicine inviting the association to meet at Auburn next year, 1917.

Motion that the invitation be accepted. Seconded and carried.

Adjourned, 5.45 p. m.

ROBT. BURNS, Sec'y pro tem.

ABSTRACTS

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from

a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Infections.

Localized Tetanus. E. Meriel, Soc. de Chir., Feb. 2, reports a case consisting of spasmodic monoplegia in a leg and one limited to the head without facial paralysis. The attenuation of virulence is ascribed to the prophylactic injection of antitoxin.

Specific Bacilli in Bilious Vomiting in Typhoid. Jean Bauer, Hautefeuille and J. Sylvestre, Soc. Med. des Hop., Jan. 26, while agreeing that blood cultures are indispensable, state that bacilli are found in the bilious vomitus of certain cases of typhoid and paratyphoid and then afford a prompt diagnosis. The bacilli may merely have been eliminated by the liver or they may be colonizations destined to produce specific angiocholecystitis.

Proportionate Incidence of Typhoid and Paratyphoid as Influenced by Vaccination. Marcel L'Abbe, Ann. de Med. Jan.-Feb. 1916, gives the following estimates, although conceding that it is based on reports not always absolutely determined: In the unvaccinated, 87.8% of the typhoid group are genuine typhoid, 10.9% paratyphoid B, 1.1% paratyphoid A. After 1 injection the cases are equally divided between true typhoid and paratyphoid B; after 2 injections, only 9.5% are true typhoid; after 3 injections 8.5%; after 4 injections true typhoid occurs in only 4.7%, paratyphoid B in 92.9% and paratyphoid A, too rare to be estimated in the preceding, 2.4%. While, after vaccination, the initial symptoms may be severe, the course of the disease is short and the later symptoms mild. (Note: Anti-vaccinationists have used the clinical reports of the present war as an argument against this method. There is no question but that enthusiasts have claimed too much for anti-typhoid inoculation, basing their claims on experience in peace under conditions when typhoid would not be expected at all or to a very insignificant degree at most. The charge has also been made of attempts to cover up with another diagnosis, cases of typhoid occurring after vaccination. The war experience, not yet reduced to accurate statistics of large numbers, unquestionably shows that anti-typhoid inoculation is not an absolute prophylactic, although failure has been shown to be due in considerable measure to incomplete protection, as by one or two injections of vaccine, or even to errors in histories, stating that vaccination had been performed when as a matter of fact, it had

been omitted. But, practically all clinical experience in the war zone attests the great value of inoculation). It should be borne in mind that the present war is unique as regards continuous trench occupation, with little change from month to month, lack of opportunity for burying corpses—and difficulty of keeping them buried—conveyance of infectious material by rats and flies, and hardships practically preventing the carrying out of measures to insure sterility of water, milk and food. Without vaccination, under the present war conditions, even with full knowledge of sanitary methods of prophylaxis and competent executive efforts at control, it can scarcely be doubted that the typhoid incidence would have equaled that of our Spanish war in concentration camps. This latter has been cynically stated to amount to the infection of every man not immune from a previous attack and, for many regiments, even this statement was hardly an exaggeration).

Anti-Paratyphoid Inoculation With Grave Phenomena.

Albert Levy, *Le Prog. Med.*, Sept. 5, reports the case of a man aged 35, previously in good health who had had two series of anti-typhoid vaccinations and the first injection of anti-paratyphoid vaccine, without marked reaction, except that after the latter, he had had four or five diarrhoeic stools a day and had suffered from lack of appetite, but did not report this condition to the surgeon. The second anti-paratyphoid injection was given 10 days after the first. Within ten minutes, local pain in the arm occurred, with general tremors and weakness. During the night, intense rigors occurred and several diarrhoeic discharges, blueness of extremities, nose, ears, etc., weak pulse, temperature 40.2 (104.4 F) state of collapse. 10 C.C. of camphorated oil and 1 C.C. of 1:1000 adrenalin were administered hypodermatically. The pulse was 150 the day following the inoculation but gradually fell to about 80 but fluctuated and the circulatory power was not normal for 2 or 3 months. There was complete anuria the first day followed by albuminuria till the 6th day. The stools were bloody for 2 days. Patches of pallor, blueness and red tip of nose gave the patient the appearance of a clown. Numerous ecchymotic spots formed with labial herpes on the sixth day. Complete recovery ultimately occurred.

Vincent's Angina—Sequellae. T. H. Glenn and W. R. Dodge, Fort Dodge, Ia., *St. Paul Med. Jour.*, Sept. Among 8 cases seen in a year, one syphilitic developed a membrane over the whole buccal cavity, gastro-intestinal symptoms and death. The other developed multiple paralyses as after

diphtheria which was excluded bacteriologically as was syphilis by a negative Wasserman—Recovery.

Military Surgery.

Duodenal Ulceration, general peritonitis from perforation, death. Merklen and Jourdan, independently report a case each, occurring in soldiers and seen in the hospital only in the terminal stage. It is implied that, in civil practice, better opportunities would have been presented for prompt diagnosis and therapeutic measures. A classic epigram by Grisolle is quoted to the effect that peritonitis die talking, meaning that the end comes suddenly without unconsciousness. In the discussion (Medical Reunion of the 4th Army), Potherat called attention to the fact that juxta-pyloric ulcers are rare in military experience and that this is not entirely due to the exclusion of women (nor to the superior physical condition of soldiers and their age) as they are not even common in the zone of military occupation.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Lucius W. Bryan, (not listed in State Directory) of Mumford, died in Rochester, Aug. 20, aged 72.

Sir Joseph Beacham, maker of the well known pills established by his father, the late Sir Thomas Beacham, died Oct. 23 aged 69.

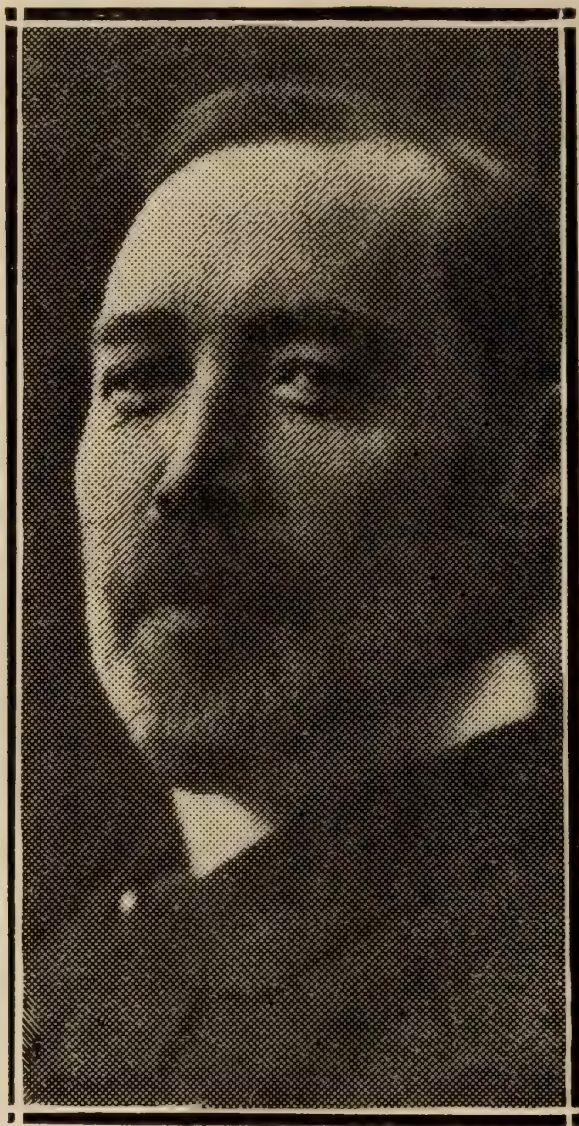
Dr. D. Braden Kyle, Eclectic of Cincinnati, 1891, died at his home in Philadelphia, Oct. 23, aged 63, of pneumonia. He was widely known as a laryngologist and as an author.

Richard Mott Moore died Sept. 13, 1916, at his home in Rochester, N. Y., after a long illness. He was one of the very foremost physicians of Rochester, nearly equal in renown to his illustrious father, Edward Mott Moore, a man widely known and esteemed throughout America.

He was born in Rochester on Nov. 23, 1855. His mother was Lucy Prescott a native of Vermont. He was educated in private schools in Rochester and in the University of Rochester. After two years he left however to take up his medical

training in the University of Buffalo at which school his father was Professor of Surgery, though living and practicing in Rochester. He travelled after the completion of his course and attended Albany Medical School for a time. He too became an instructor in the University of Buffalo for a time.

For thirty-five years he practiced in Rochester and for many years was a leader in professional thought and activity.



RICHARD MOTT MOORE

He became highly esteemed and greatly beloved by his professional brethren, as well as by all those with whom he came into contact. He was one of the founders of the Academy of Medicine and served as president for several terms. He was for many years a Censor of the County Medical Society and a member of the Milk Commission. He was for some time a member of the Board of Health of Rochester.

Dr. Moore was much interested in general science. He was a member of the Rochester Academy of Science. He was an entomologist of some note being particularly interested in the collection of beetles.

He is survived by his wife, one daughter and three brothers, Dr. Edward Mott Moore, 2nd, Samuel P. Moore, both of Rochester, and Frederick P. Moore of Pittsburgh.

On the second day following his death there was held a joint meeting of all the Medical Societies of Rochester, and the following resolutions were adopted:

Whereas, Richard Mott Moore, for more than thirty-five years an active practitioner of medicine in the City of Rochester, and for nearly the whole of this time a member in the established medical societies or a charter member of those founded during his active life, has been removed by death, and

Whereas, The Monroe County Medical Society, the Academy of Medicine, the Rochester Medical Association, the Pathological Society and the Hospital of Medical Society are now assembled in special meeting to voice their appreciation of the life and work of Richard Mott Moore, both as a man and a practitioner of medicine.

Now, therefore, we, the members of these societies here assembled, believe that we have lost in Dr. Moore a man of character, ability, integrity and lofty purpose. As a physician among physicians we wish to testify to his helpfulness in council, as well as his ready and earnest enlistment in every good cause for the advancement of high professional character. As a physician to patients we give evidence of what we knew him to be at the bedside. Simplicity, patience, kindness, perseverance, unsparing energy were the dominant traits of his character in all his dealings with patients, and these he inspired with something of his courage. Few among us can hope to carry to our patients the calm and comfort and the solace which his presence brought to those to whom he ministered. The kindness, the cheer, the comfort to rich and poor alike, made him sought after by a large clientele.

Through all the years of his early and more robust manhood he gave to his patients all that was in him; and later in life, when pain and long suffering kept him sleepless through many weary nights of vigil, he still gave to his patients, both in the home and in the hospital, the same service as in his years of full vigor. Few ever heard him complain. His own ills he kept to himself. The ills of others, their pain, and the measures for its relief were always nearest his heart. Even in his last sickness he spoke little of himself. If he had pain he was like the sturdy Samuel Johnson, when he said, "And if I have pain, I trust I shall bear it as a man."

"So, as a physician to physicians, as a physician to patients, as well as in civic affairs, to which he gave no small measure of his busy life, he met reverses, rebuffs, criticisms, compli-

ments and successes, with the same engaging smile and gentle demeanor. He had success in practice far above that which is given to most men, and not until his last sickness did anyone, however poor, go away unattended.

So, as physician, scientist, friend, brother, husband, father, he fulfilled a high purpose in the world. Now he is gone and we, his sorrowing survivors, ask that these resolutions be spread upon the minutes of our societies and conveyed to his family as a small tribute to one whose memory we shall cherish as long as we endure in life.

W. B. JONES,
JOSEPH W. MCGILL,
CHARLES E. DARROW,
CHARLES D. YOUNG,
E. W. MULLIGAN,
GEORGE W. GOLER.

Dr. Cardinal T. Wolsey, Howard University of Washington, D. C. 1885, died at the home of Dr. E. F. Hurburt of Buffalo, Sept. 26. He was born in Batavia 67 years ago. He resided at 67 Niagara Street, Buffalo, for many years. He was examiner for the Buffalo Marine Corps recruiting station for 20 years and was a member of a number of fraternal organizations.

PERSONAL

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. A. L. Benedict of Buffalo calls attention to a mistake in his name in the classified list (physicians) in the 1916 Buffalo City Directory and requests those using this list to correct as above, the initials being the full name.

Dr. E. W. Kennedy announces his return to Rochester. Office 53 S. Fitzhugh Street, residence 127 Genesee Street. Both telephone connections at both places. Practice limited to diseases of the eye; office hours by appointment.

Dr. Roland O. Meisenbach of Buffalo spent Aug. and Sept. in the east.

Dr. J. E. Slotkin of Buffalo has moved from 537 William Street to 49 Niagara Street.

Dr. Frank A. Valente of Buffalo, a member of the Hospital Corps of the 74th Reg. was home on furlough during part of Oct. and Nov.

Dr. Clayton W. Greene of Buffalo, 1st Lt. U. S. Medical Reserve Corps, who has been in charge of the depot hospital at Columbus, was granted a 4-weeks leave of absence, during Oct. and Nov.

Our Associate Editor, Henry W. Hill, LL. D., has been re-elected president of the N. Y. State Waterways Assn.

Drs. Wm. G. Bissell and Geo. W. Diebold of the Buffalo Health Dept. made a tour of the state laboratories in Oct. with special reference to the study of infantile paralysis.

Dr. Herman G. Matzinger returned in Oct. from a motor tour of the east.

Drs. Herman K. De Groat, Arthur E. Eisbein, Jesse N. Roe and Geo. H. Westinghouse have qualified by examination for appointment as city diagnostician at a salary of \$2000.

Dr. Sophy Ellen Page, Buffalo 1902, married Rev. Charles L. Carlucci of Monson, a suburb of Springfield, Mass., Oct. 5.

Dr. F. W. Maeder of Albany, representing the state health dept. made an inspection of Tonawanda and adjacent towns about Oct. 1, to study the typhoid situation.

Dr. A. C. Callahan of Buffalo, of the hospital staff of the 74th Reg., had a furlough in Oct. He reports the men of the regiment as enjoying the best health in spite of bad weather.

Dr. Rolla E. Shaver, Buffalo and Dr. Grace A. Joslin of E. Bethany, graduates of the Medical Dept. of the University of Buffalo, 1915, were married in Buffalo, Oct. 14. After a wedding trip in the west, they will reside at 1225 Clinton Street, Buffalo.

Dr. Allen A. Jones of Buffalo gave a dinner at the Saturn Club, Oct. 19, of 20 covers, in honor of the out-of-town guests of the Medical Assn. of Central N. Y.

Dr. Lucien Howe of Buffalo entertained the members and guests of the Medical Assn. of Central N. Y. at luncheon, Oct. 19. Col. J. R. Kean, U. S. A. spoke briefly of the organization of Red Cross Units.

AUBURN AND VICINITY

Dr. R. R. McCully, formerly of Union Springs, N. Y., has opened an office for general practice on Court Street, Auburn.

Dr. Chas. D. Reid, Jr., has removed to Syracuse, N. Y.

Dr. W. P. Conway has purchased the house recently vacated by Dr. W. H. Coe at 82 East Genesee Street.

Dr. R. C. Almy of 130 East Genesee Street has purchased the property at 92 East Genesee Street, formerly occupied by Dr. Thos. C. Sawyer. The place is now being remodeled and will be ready for occupancy shortly.

Dr. Thos. C. Sawyer has removed to 97 North Street.

Dr. Geo. C. Sincerbeaux of 93 Wall Street has recently returned from three months' post-graduate study in Paediatrics in Boston and will remove to 96 East Genesee Street. His present location will be occupied by Dr. M. K. Willoughby, formerly of Genoa, N. Y.

Dr. R. W. H. Rollings, a former practitioner of this city, now of New York City, was united in marriage October 10 to Miss Hazel May Quick of East Genesee Street, Auburn. Mrs. Rollings is a graduate of the Flower Hospital (N. Y. city) Training School for Nurses.

CORRESPONDENCE.

This department is intended for the presentation of news and views not coming within the scope of other departments, and particularly to afford opportunity for discussion and criticism of views elsewhere expressed.

81 Fulton St., New York, October 11, 1916.
Editor Buffalo Medical Journal:

Our attention has been called to a clipping from The Medical Times of August in your October issue and as you have misinterpreted our comment we desire to say that our animadversions had to do with the New York City and not the New York State Board of Health.

Very truly yours,

THE MEDICAL TIMES,

H. S. Baketel, Editor.

BUFFALO MEDICAL JOURNAL

Yearly Volume 72

DECEMBER, 1916

Number 5

ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

The Attitude of the Family Physician During an Epidemic of Poliomyelitis.

Dr. IRVING M. SNOW, Buffalo.

(Authorities: Wickmann, Flexner, Lovett. New York State Journal of Medicine, Sept. 1916.)

During the summer of 1916 the community of the Eastern and Middle States, was in a pitiable condition of terror, caused by an epidemic of poliomyelitis. The disease commenced in Brooklyn in May and June, spread through all of the metropolitan districts, invaded Long Island, Connecticut, New Jersey and New England, extending to Northern and Central New York.

The mortality and number of victims was the greatest in the history of the disease and there was a sad record of suffering, crippling and death.

Since 1907 our country has not been free from poliomyelitis, and high sanitary authorities predict that another epidemic may appear next year. Yet the history of the disease does not show an annual recurrence. Usually a neighborhood is free for several years. However, an attitude of preparedness is certainly advisable.

The state and local health officials are keenly on the alert, and new light has been thrown upon the epidemiology and bacteriology of poliomyelitis. With the health officials, the family physician is the main help of the community in arresting the spread of the plague, and both have fought skil-

*Read as part of Symposium on Infantile Paralysis at the Medical Association of Central New York, Buffalo, October 19, 1916.

fully and persistently. At present new and interesting duties are therefore thrust upon him; thus:—

I. The family physician should familiarize himself with the new facts of poliomyelitis, epidemiological and bacteriological, and also with the symptoms of both typical and atypical cases.

II. He should, without fear of the displeasure of his patients, promptly report and isolate all suspicious cases, and should personally use all the precautions of a surgical clinic to avoid spreading the disease himself.

III. He should co-operate with, and frequently confer with his health officer, so that the state, town, municipal authorities and practicing physicians may manoeuvre like one man.

IV. He may also, by a courageous and tactful attitude, do much to tranquilize an infected locality, calling attention to the fact that the number of susceptible adults and children is always small.

Poliomyelitis shows most extraordinary variations in type and virulence from year to year. It may occur sporadically or in small isolated groups, or it may, during the warm season, increase by leaps and bounds leveling its victims by thousands. The disease seldom flows through a district like a stream; it jumps from one town to another miles away, or is sprinkled here and there through a city without reason or order.

It must be remembered that scattered, sporadic cases are peripheral to a central focus, and that the patient has been infected by a healthy or chronic carrier or by an unrecognized abortive case. The disease extends along the routes of ordinary travel,—land or water, railway or country road, and is distributed by human beings and their movements.

A few cases of poliomyelitis in New York in May and June, were the forerunners of a murderous epidemic in July and August. This year the apex of the plague was reached in August, in 1907 the maximum occurred in September.

Most cases develop between July and October. Yet the appearance of frost does not always kill the virus of poliomyelitis. Several winter epidemics have been reported. In the winter of 1913 poliomyelitis prevailed in Sweden and the apex of the disease was reached in April and May.

The winter incidence is not without importance in studying the epidemiology.

Regarding the fluctuations of the virulence of the germ,—Dr. Flexner finds an explanation in the experimental disease in monkeys. The poliomyelitis virus of man has a low infective power for monkeys; the disease has to be forced upon them. Through successive generations of monkeys the disease acquires increased virulence. After a number of generations

of experimental simian disease it returns to its low infective power, corresponding to the rise and fall of an epidemic.

Thus:—in man after a long resting period the virus of infantile paralysis may again become actively infective, causing at first a few, then later numerous cases.

The germ infects the body sometimes through the digestive tract, more often through the mucosa of the throat and nose, reaching the central nervous system through the nasal lymphatics, and causes an acute hemorrhagic myelitis and a mild meningitis. The virus is contained in the secretions and is distributed in infectious droplets in sneezing, coughing, kissing, and by contaminated finger, handkerchiefs, or by the intestinal contents. Many epidemics have been traced to schools. The period of active infective power is greatest early in the disease, diminishes rapidly, and usually disappears at the end of five or six weeks. We would always think of recovered cases as chronic carriers and as a possible menace. Dr. Shepard relates several instances of direct and indirect transmission:

1. A public collector of accounts had a son ill with infantile paralysis. The case was not reported or isolated. Three cases of polio developed in houses where he visited.

2. Dr. Y. attended a case of poliomyelitis July 6th, using no precautionary measures. July 15th his infant daughter developed a right hemiplegia. Nothing further happened until fall, when he, as a school physician, examined 2000 children. Among them were several recovered cases of polio and children from previously infected families.

November 23rd his second daughter was attacked by poliomyelitis.

November 29th his third daughter sickened with the same disease.

Doctor Z. attended a case of poliomyelitis May 21st. A case developed in his family June 14th. In July a second abortive case occurred in his family. Dr. Z. was in intimate contact with his children while attending the first case.

June 24th an office patient of Dr. Z. sickened and died of polio.

Case 5: A child swung in a hammock with Dr. Z's first patient of ten weeks earlier, and later developed polio.

Flexner cites a case where the virus was carried in the throat for five months.

The mucosa of the throat and nose of a healthy person in intimate contact with infantile paralysis may become contaminated, and he may pass the disease to a susceptible child. The virus may lodge in the finger, clothes or handkerchief, and after several days infect the person,

To prevent the disease, nothing is better than syringing out the nose and throat with a saline solution.

To absolutely isolate all cases seems impossible, involving quarantine of all patients, contacts and attendants and abortive cases, closing the schools and exercising such surveillance over travel that practically means an arrest of commerce. Nevertheless, all foci of polio, large and small, should be watched and guarded.

Poliomyelitis attacks the rich and poor, sanitary and unsanitary, children and young adults.

Delicate and psychopathic children are no more easily affected than the robust. The age incidence, especially the susceptibility between two and five years, is very striking.

SYMPTOMS:

The disease commences with fever and malaise, headache, pain and tenderness in the back and limbs. Hyperesthesia or stiffness in the spine or neck and are very suggestive.

These symptoms may be difficult to localize in a fretful child. In an adult they simulate the myalgia of an influenza.

Vomiting and diarrhoea are often observed. The patient may have a sore throat or a head cold or a bronchitis. Prolonged drowsiness is very suspicious.

This may constitute the whole picture of the disease, but usually after one, two or three days some muscular groups grow weak and are easily fatigued, then loss of power appears, increases and attains its full extent in a few days, the patient being feverish, tender and prostrate. After some days or weeks the palsy recedes, owing to the subsidence of edema in the cord and absorption of inflammatory products. In the majority of cases a flaccid palsy remains.

Wickman's classification gives the clearest idea of the various clinical aspects of the disease:

1. Spinal paralysis.
2. Landry's paralysis.
3. Bulbar.
4. Encephalic.
5. Ataxic.
6. Meningeal.
7. Poly-neuritic.
8. Abortive.

A passing description of dangerous symptoms or atypical conditions may be useful.

The abdominal muscles are affected quite frequently, as shown by localized bulging of the abdominal walls, and difficulty in maintaining the erect position.

Paralysis of the bladder and retention of urine is often associated with paralysis of the legs. It is usually transitory like the fleeting muscular palsies.

Very dangerous are the paralyses of the respiratory muscles, the diaphragm and intercostals.

If the diaphragm is paralyzed the abdomen is motionless.

If the intercostals are affected the chest does not move either in inspiration or expiration. Intercostal paralysis is bilateral; breathing is carried on by the diaphragm. If both intercostals and diaphragm are involved the patient quickly dies of asphyxia.

In recent epidemics of poliomyelitis the meningeal type has become common. It must be remembered that a constant lesion of Polio is a cell infiltration of the pia-mater and a mild meningitis at the beginning of an epidemic. Many deaths from Polio are reported as meningitis, often tuberculous meningitis.

The patient suffers from headache, fever, vomiting, retraction of the neck, opisthotonus, tenderness, rigidity and tremor of the limbs, strabismus and delirium. The symptoms may last several days and the patient may make a complete recovery, or more probably a paralysis of arm or leg are discovered as the symptoms of cerebral irritation subside.

The findings from lumbar puncture will be described by Dr. Sharp.

POLY-NEURITIC TYPE.

With the fever and prostration there may be extreme tenderness of the nerve trunks in arms and legs and spine. The patient shrieks if the bed is jarred or he is moved. Neuritic pains are nearly always followed by a paralysis of the tender limb. The pain is caused by a spinal meningitis.

Do not mistake the pain in the limbs for rheumatism. The joints are not swollen in Polio. Also remember that a baby with scurvy has weak, tender legs also a sore mouth, and is quickly relieved by fruit juices.

ABORTIVE CASES.

These are important to recognize. They are always seen with paralytic cases and are active factors in spreading the disease. The writer saw in one family a child with a flaccid palsy of the arm and three other children with fever, vomiting and diarrhoea. Between definitely abortive cases with malaise and slight and fleeting palsies and frankly paralytic cases, several transitional forms may exist in the same family. A child may have fever, headache, pain, rigidity in the back and neck and stiffness in the limbs, pointing to a mild infection to the nervous system. Later it will show extreme prostration for weeks.

There may be passing symptoms of mild meningismus, rigidity of the neck and back.

Wickman describes four abortive types:

1. Cases running the course of a general infection.

2. Cases with meningeal irritation.
3. With limb tenderness—pseudo-influenza.
4. With gastro-intestinal symptoms, vomiting and diarrhoea.

A New York physician told the writer that during the 1916 epidemic seemingly abortive cases occasionally developed a fatal respiratory paralysis. Often abortive cases are not included in the collective investigations of an epidemic. They are forgotten or misinterpreted.

PROGNOSIS.

In 1916 Poliomyelitis showed itself in a new phase. The number of recovered cases was very large, but the mortality was abnormally high.

In the epidemics of 1907-1908 the death rate was from 5 to 7%. This year 26-28%, showing a striking increase in the virulence of the germ. Both the extent of residual palsies and percentage of fatalities was higher in older children and adults than in young children.

Wickman:—Mortality 1-11 years, 12%. 12-32 years, 27%.

Wickman found 12-18 months after the acute stage, 44% of children had completely recovered. 56% had a permanent paralysis.

In the American cases Lovett estimates only 10% had a serious disability like a paraplegia. Many of the permanent paralysees are slight; a weak leg or drop toe;—no more disabling in life work than imperfect eyes.

The outlook for restoring muscular function is much more favorable if the patients are not injured by premature walking movements or by electricity.

The writer visited the Willard-Parker Hospital in September and saw hundreds of convalescent children; most of them were rapidly improving. It was exceptional to see a badly crippled child.

The intensity of the initial symptoms is no index to the final result. Alarming early manifestations may usher in an abortive attack or a mild beginning may end in extensive palsy or a fatal respiratory paralysis.

TREATMENT.

No especial advance is recorded in treatment. Adrenalin has not proven especially useful. As to the serum of recovered cases,—convalescent serum,—Netter used the serum of a case whose acute stage occurred three years before and found that this serum in vitro destroyed the virus of epidemic poliomyelitis. Both Netter and Flexner proved that in the serum of recovered children antibodies exist.

Convalescent serum has been largely used in New York this summer by withdrawing 20 c.c. of spinal fluid and in-

jecting 10 c.c. of serum into the spine. This remedy is enthusiastically advocated by some.

Lovett advises prolonged rest for five or six weeks to allow repair by absorption of the inflamed nerve center. He considers early massage, attempted movement and electrical treatment as injurious. With the disappearance of tenderness in six weeks active treatment may be commenced. A long stay in bed for children is both useless and undesirable.

Finally, if an epidemic appear next year, the health officials and family physician are certainly ready for it, armed with a full equipment of clinical experts, laboratories, hospitals, and a complete system of isolation and co-operation.

Alas! The experience of Sweden, scourged for years by frequent epidemics, shows that knowledge and preparedness do not always bring safety.

Vision of the School Child. F. Parke Lewis of Buffalo, N. Y., *State Jour. of Med.*, Oct., quotes the following Pennsylvania statistics. In the report of 1914-15, in the fourth class districts, the number of pupils inspected amounted to 469,199. The tabulation of visual defects is as follows:

Tabulation of Defects.

Vision.

Pupils having defective vision.....	83,748	17.8%
Right eye	13,184	
Left eye	14,750	
Both eyes	55,814	
Pupils having other eye affections.....	5,512	
Corneal scars	1,717	
Blepharitis	1,400	
Conjunctivitis, simplex	1,237	
Conjunctivitis, follicularis	7	
Iritis	1	
Trachoma	4	
Strabismus	1,091	
Astigmatism (special tests not made...)	55	

Gasoline Phlegmons. Rene Dillenseger, *These de Lyon* 1916, *Le Prog. Med.*, Sept. 5, reports two cases and refers to about 10 in literature. Diagnosis is made by the anthracoid appearance of the incision, multiplicity of foci, the gangrenous rather than purulent condition, the sterility, and the odor and chemie identification. As prophylaxis, he suggests a sentence of 5 years at hard work, under the legal charge of abandoning a post in face of the enemy, these phlegmons being usually self-produced to avoid or escape military service.

Differential Diagnosis and Treatment of Infantile Paralysis.*

By EDWARD A. SHARP, M. D., Buffalo, N. Y.

The diagnosis of Acute Epidemic Poliomyelitis presents a number of difficulties owing to the various clinical forms in which the disease appears.

Fully developed cases of the bulbo-spinal type offer no difficulty, and, while the majority of the cases in an epidemic usually conform to this type there are many obscure, irregular, atypical and abortive cases which are frequently unrecognized.

Lovett's definition that "Infantile paralysis is a general infection the results of which are most marked in the nervous system" indicates the indefinite and wide range of symptoms which may be expected in the atypical cases.

The early constitutional symptoms may differ in no respect from any ordinary febrile disturbance of gastro-intestinal or other origin. The fever, malaise, vomiting, constipation or occasionally diarrhoea, convulsions and general weakness are essentially those of any acute infectious disease, and, should the process stop at this stage, which it undoubtedly does in some cases, a diagnosis of infantile paralysis would be questionable even during an epidemic.

When, however, clinical manifestations of involvement of the nervous system are added to the above named symptoms, the diagnosis becomes more certain and if confirmed by the characteristic changes in the spinal fluid the diagnosis can be made without waiting for paralysis to complete the clinical picture.

Symptoms indicating an extension of the infection to the nervous system usually appear early—along with the prodromal constitutional symptoms, or after a day or two.

Hyperaesthesia is frequently present and the child cries when touched although at other times there is no pain and the child appears dopy.

Stiffness of the neck and back with tenderness on any attempt to raise the head or flex the spine is an early sign of meningeal involvement. The Kernig sign and the Brudzinski neck sign are usually present and the neck becomes retracted in the more severe cases. The increased pressure from fluid accumulation in the spinal canal and ventricles of the brain is shown by a tympanitic percussion note over the lateral ventricles—the so-called MacEwen's sign.

Twitching and jerking of the extremities or of muscle

*Read as part of Symposium on Infantile Paralysis at the Medical Association of Central New York, Buffalo, October 19, 1916.

groups, or a fine fibrillary tremor has been noted a number of times during the preparalytic stage. It is a symptom of spinal irritation, either from the toxins or from increased pressure.

A diminution of the reflex activity of an extremity may indicate that this part is to be paralyzed. Where observations could be made at frequent intervals the reflexes have shown a gradual diminution in activity up to complete loss. This is particularly striking in those cases where the corresponding extremity remains normal for comparison.

The mild cases, with little or no paralysis, are usually described as aborted and they may become a dangerous element in the spread of the disease.

Organisms have been described by Flexner, and more recently by Rosenow, one or the other of which may be the origin of the disease, but as yet no clinical-laboratory use has been made of the discovery to assist in diagnosis. The only positive laboratory method is the serum neutralization tests and the present technic is not practicable for routine work. The diagnosis must therefore be made on the clinical symptoms and the spinal fluid findings.

Examination of the spinal fluid may be of great value in determining the nature of an infection which shows an early involvement of the meninges such as occurs in poliomyelitis, tubercular meningitis, purulent meningitis, syphilitic meningitis, serous meningitis, etc.

During the past five months an investigation of fifty-six cases suspected of being poliomyelitis showed that in only fourteen cases was the diagnosis confirmed. Eleven of these occurred in the City of Buffalo, the remaining three were in Niagara County.

The atypical character of some of the cases made a diagnosis difficult without the aid of the spinal fluid findings. The fluid usually found in poliomyelitis, and which is characteristic of the infection, is clear or only rarely slightly opalescent. There is usually some increase in pressure and in our cases amounts varying from 2 c.c. to 20 c.c. have been withdrawn. Occasionally on standing over night the fluid has shown a fine fibrin-web formation but this is much less marked than in tubercular meningitis.

The cells, usually lymphocytes, are increased in amount from 20 to 300 or more per cubic millimeter. The large mononuclear cells are especially characteristic of the poliomyelitis fluid. There are no organisms found on staining.

The fluid also reduces Fehling's solution promptly and in no case has this reaction been absent.

The amount of albumen as tested with nitric acid, and of

globulin tested with the butyric acid reaction of Noguchi, shows an increase.

Seven cases of tubercular meningitis were found during the investigation. In most of these the early clinical signs were indefinite and resembled the atypical poliomyelitis cases. The constitutional symptoms were more prolonged; the cerebral symptoms as twitchings, rigid attacks and strabismus were usually more marked. The fluid obtained showed some of the physical characters of the poliomyelitis fluid,—being clear, under increased pressure and with fibrin-web formation. The cell count is usually high, mostly lymphocytes, although in two instances the cells were fewer than the average poliomyelitis fluid; 60 in one case and 78 in another.

The reaction for albumen and globulin are usually more marked while the reduction of Fehling's solution is much less marked than in poliomyelitis. In several cases there was practically no reduction at once but after cooling a fine film of the copper deposit could be seen.

In four of the cases tubercle bacilli were found in the spinal fluid.

In contrast to these cases with clear fluid were six cases of purulent meningitis, three due to the meningococcus and three to the pneumococcus. The organisms are present in the purulent fluid and are identified by proper staining. The cells are practically all polymorphonuclear. Two of the cerebro-spinal meningitis cases due to meningococcus infection recovered under serum therapy. The three pneumococcus cases died.

One case of serous meningitis showed the typical symptoms of an acute meningeal infection such as occurs during the early stage of poliomyelitis, but the spinal fluid was negative except for the great increase in quantity. The cell count, albumen, globulin and Fehling's reaction were normal. Recovery followed promptly after removing over thirty cubic centimeters of spinal fluid.

During the course of acute infectious diseases as measles, influenza, typhoid fever, pneumonia, etc., meningeal symptoms may develop due to the action of the toxins without direct invasion of the meninges by the bacteria. This reaction is called meningismus or Dupre's Disease. Several cases were observed during the recent investigation. Two cases with measles developed a temporary weakness of the extremities lasting a day or two but recovered completely. Probably the toxins of these acute infections produce a temporary suppression of the anterior horn cells of the spinal cord similar to that which occurs in the epidemic form of poliomyelitis, or a type of peripheral neuritis develops such as occurs in diphtheria, alcoholism, etc.

One case of scurvy and several cases of rickets had pains in the joints and tenderness on manipulation producing loss of function which was thought to be poliomyelitis. The reflexes were normal and there was no actual muscle weakness. The characteristic nutritional changes and hemorrhagic areas confirmed the diagnosis of scurvy and of rickets.

Acute arthritis due to rheumatism or other infections has been observed several times and the loss of function of the extremity attributed to paralysis. There was no change in the reflexes and the loss of function was due entirely to pain and swelling of the joint.

Five cases of acute encephalitis with convulsions and temporary weakness of one side of the body from exhaustion or actual hemorrhage were observed. It is more difficult to classify the infection in these cases as a similar condition may result from the poliomyelitis infection,—the so-called polioencephalitis.

Two of these cases had severe gastro-intestinal disturbance with foul stools and considerable mucous. The fever was higher than usually occurs in poliomyelitis and the prodromal and meningeal symptoms were absent.

In one case with convulsions lasting several hours, followed by hemiplegia, the child died during the convulsive attack. Autopsy showed a marked congestion of the entire cortex with edema and a thickened, adherent dura which was not of recent origin. The dura was so strongly adherent to the brain and skull that the brain could not be removed without tearing. This was most marked over the right motor region. Adhesions were found along the fissure of Sylvius but no tubercles could be found. The spinal fluid obtained a few hours before death was clear and showed none of the characteristic reactions of poliomyelitis.

Treatment: Aside from the usual quarantine and isolation of the patient certain prophylactic measures would seem to be indicated. Considerable evidence has been adduced to show that the naso-pharynx is the usual portal of entry of the virus. A naso-pharynx free from excessive lymphoid tissue, as tonsils and adenoids, would be desirable as offering a less favorable field for infection. The repeated use of antiseptic nasal douches or applications should be discouraged as it is liable to lower the resistance of tissues which may be already susceptible. Applications of Argyrol 25% solution may be made in cases where exposure or contact has occurred.

One feature of an epidemic which has been constantly observed is the limited susceptibility of the majority of the population, and this fact must be taken into consideration in estimating the value of any prophylactic or quarantine measures. A similar conservatism must be placed on the

value of any method of treatment as the acute infection is selflimited and is liable to stop at any stage of the disease.

The treatment at the onset is that of any febrile attack. One of the first indications is active catharsis and elimination. Calomel and salines or castor oil, followed by bowel washes should be given at the onset.

The child should be kept in bed and avoid any exertion of the weakened or paralyzed parts, and this rest should be enforced during the period of fever and hyperaesthesia. As long as the temperature remains high there is danger of an extension of the paralysis.

A careful regulation of the diet is necessary during the acute febrile stage, and a liquid diet is preferable for a few days.

Urotropin, which was so extensively used during the 1912 epidemic, has not been used except for a few days at the onset but it may be given as a prophylactic in exposed cases. After the infection has invaded the nerve structures its application is useless.

Adrenalin has produced some startling results in checking the paralysis where this is due to edema, but it has no influence on the direct action of the toxins on the anterior horn cells. Its use, however, may tide over an emergency by checking the edema and it should be given in doses of 2 c.c. of 1:1000 solution every six hours, injected intraspinally after withdrawal of a few cubic centimeters of spinal fluid.

The repeated withdrawal of the spinal fluid probably exerts a beneficial influence by removing some of the virus or toxins and this may account for some of the success attributed to the use of adrenalin. No unfavorable results have followed the repeated lumbar puncture nor the administration of adrenalin.

Adrenalin has been of most value in the treatment of the rapidly advancing cases of the Landry's paralysis type, and its use in conjunction with oxygen inhalations and artificial respiration has been successful in those cases of intercostal paralysis which appeared to be advancing toward a fatal termination.

The rational specific treatment of poliomyelitis would be a serum capable of neutralizing the infection before the nervous structures are injured and which could also be used as a prophylactic in immunizing those exposed or susceptible.

Up to the present time no artificial serum has been capable of meeting these requirements. It has been found, however, that the blood-serum of patients who have recovered from epidemic poliomyelitis contains a substance capable of neutralizing the virus of an active case, and that monkeys inoculated with a virus so treated do not develop the disease.

As a result of these experiments the blood serum of recovered cases has been employed by Netter, Flexner and others in the treatment of acute cases. In some instances the serum was obtained from patients who had recovered many years previously,—thirty years in one case reported by Netter.

The serum is prepared by withdrawing sufficient blood and separating the clear serum which may be kept in sealed ampoules ready for use. 20 to 30 c.c. of this serum may be injected intraspinally every day or two for several treatments after removal of an equal amount of spinal fluid. The prevailing opinion is that the serum should be used very early, before any paralysis has developed, although some of the clinicians think that the early use tends to aggravate the symptoms, increasing the fever and producing a severe meningeal reaction.

During the acute stage the indications are to keep the child quiet and to avoid meddlesome mechanical therapeutics as massage, electricity, hydrotherapy, etc., although at a later stage, when the hyperaesthesia and tenderness have disappeared, these methods may be used to advantage. A light bandage or fixation splint may be used during the acute period to relieve the pain and tenderness which would result from movement, and to prevent contractures and deformities which almost invariably occur when one muscle group is paralyzed while its antagonist remains normal.

After subsidence of the acute symptoms the treatment is orthopaedic and muscle training, with assistance of massage, hydrotherapy, and occasionally electricity.

Note: The third part of the Symposium on Poliomyelitis, dealt with the Surgical Treatment and was given by Dr. W. W. Plummer of Buffalo. As his remarks have already been embodied in other papers, he has decided not to publish them.

Peripheral Neuritis Following Emetine. A. R. Kilgore, Shanghai, Boston M. & S. Jour., Sept. 14, report 6 original cases and include 5 of Levy & Rowntree, in which neuritis of varying severity followed a total dosage of .25—1.25 of emetine for amoebic dysentery (4-19.5 grs.). They refer to the condition as fairly common. The prognosis is good but the symptoms may persist for several weeks.

Caesarian Triplets. The Boston M. & S. Jour., Oct. 5, reports a case delivered at Providence Hospital, Holyoke, Mass., Sept. 21. The babies were all vigorous and weighed 6 pounds each for two girls and 5 pounds 12 ounces for a boy.

Discussion on Poliomyelitis.

Dr. EDWARD CLARK, Buffalo, N. Y.

Sanitary Supervisor in the New York State Department
of Health.

In the early part of August, 1916, I was directed by Dr. Herman M. Biggs, State Commissioner of Health, to report at the Willard Parker Hospital in New York for the purpose of studying poliomyelitis. While at the Willard Parker Hospital I had an opportunity to see about 400 cases of poliomyelitis of various types; while there I also became familiar with their method of doing lumbar puncture work for purposes of confirmatory diagnosis. On the 15th of August I was directed to go to Middletown, Orange County, N. Y. to open a branch office of the State Department of Health from which the work of handling and controlling the poliomyelitis situation in Rockland, Orange, Sullivan and Ulster Counties was directed. In this work I was associated with Dr. Charles W. Berry and Dr. John A. Smith, Sanitary Supervisors in the State Department of Health. There were assigned to the Middletown office also three nurses who were engaged in doing field work. It may not be generally known, but the four counties above mentioned are the summer boarding house district for a large part of New York's great east side; it is estimated that five or six hundred thousand people, including a large number of children, spend a part of the summer in the above named counties, particularly in Ulster and Sullivan Counties. Sullivan County itself is largely the summer boarding district for the Jewish people from lower east New York.

In these counties up to the time of my leaving there had been reported approximately 480 cases of poliomyelitis. During the time of my connection with the office we had reported to us 264 cases, of these 152 were males and 112 females; 50.3 per cent of the cases occurred in children under 5 years of age; 32.3 per cent occurred in children between the ages of 5 and 10; 10.6 per cent occurred between the ages of 10 and 15; 3.1 per cent occurred between the ages of 15 and 20; 2.2 per cent occurred between the ages of 20 and 25; .74 per cent occurred between the ages of 29 and 30. Among adults over 30 years of age 3 cases occurred, all males, one 37 years of age, one 47 years of age, and one 51 years of age. The mortality rate in these four counties was about 20 per cent, the fatality seeming to increase with the ages of the patients. In the early part of the epidemic children mostly were affec-

ted, but as the epidemic progressed the cases among older persons seemed to increase.

The epidemic of poliomyelitis which has prevailed during the summer and fall of this year has been marked by two features which make it almost unique in the history of epidemics of this disease, these features are the widespread prevalence of the disease with the large number of cases reported, and the very high mortality rate. A study of the reports of different epidemics of poliomyelitis which have occurred during the past twenty years reveal the curious fact that the symptoms of the disease seem to vary largely in the different epidemics. In 1912 in the epidemic which prevailed in Western New York, I had an opportunity to observe quite a number of cases, and at that time gastrointestinal disturbances marked by diarrhoea and catarrhal conditions of the nose and throat were quite common. In the recent epidemic these conditions were not frequently found. Of the 264 cases reported at Middletown office during my connection with it, 85 per cent had constipation, in many cases of a very obstinate type; about 90 per cent of the cases had marked rigidity of the neck, so that it was almost impossible to flex the head upon the sternum even to a slight extent without causing the patient severe pain. Drowsiness was a marked character in about 65 per cent of the cases. Nausea occurred in about 80 per cent of the cases, and vomiting occurred in about the same number of cases. The vomiting was not of the projectile type which we frequently see in cases of meningitis, but it was a vomiting which seemed to be induced by the administration of food or some unpleasant tasting medicine. Many of the patients would complain of a good deal of pain in the back and limbs upon being handled, but if left alone they did not complain of very much pain. All of the cases commenced with initial fever running all the way from 100 to 105 deg. Fahrenheit. Delirium occurred in a very small number of cases which I observed, and as a rule mentality was intact. Some authors have attached considerable importance to a peculiar and profuse sweating of the patient which was a marked symptom in some of the former epidemics. I did not observe this symptom except in a very few cases. Very few of the patients complained of sore throat, although the fauces and tonsils in many cases were very red. A peculiarly coated tongue was observed in a large number of cases, different from any coated tongue I have ever observed, and for want of a better name I called it the P. P. "paste polie" tongue on account of its peculiar appearance, particularly if seen early; the tongue looked as though ordinary office paste had been spread on it very carefully, just as you would spread butter

on a slice of bread; later on the color changed and the papillae of the tongue would show around the edges. The Kernig sign was present in very many cases, either in both or one leg, the patellar reflexes early in the disease were sometimes exaggerated, later on they would be absent either on one or both sides.

The Babinski sign and the Brodzinski sign could be elicited in a small proportion of the cases, and in those cases in which there was a good deal of meningeal involvement with evidence of intra-cranial pressure, a positive MacEwen sign was occasionally observed.

In my experience the severity of the onset affords no criterion as to the amount of paralysis which will occur in a given case, many of the cases which had very high initial fever, where the patients were exceedingly nervous and irritable, would turn out to be of the abortive type of the disease and would quickly recover with no resulting paralysis. Different observers and writers have made a large number of classifications of different types of poliomyelitis, but I have put the cases which I have observed into three different classes, first the abortive, in which no resultant paralysis occurred; second the spinal type, third the bulbo-meningeal type. This last type takes in all the cases in which there seems to be a good deal of meningeal involvement and affects the nerve centers high up. In this type we would get quite a number of cases of facial paralysis, paralysis of the muscles of the eyes, paralysis of the muscles of the throat, etc.

Spinal puncture was resorted to in a number of cases as a therapeutic measure, particularly in those cases which showed the effects of cerebral involvement with inter-cranial pressure. This method was also resorted to in a number of cases for diagnostic purposes. The spinal fluid in poliomyelitis, if unmixed with blood, is always clear. If the case was one of poliomyelitis, and if the puncture was made early in the disease, an increase in the number of mononuclear lymphocytes was observed. This increase was variable, ranging from 15 or 20 per cubic millimeter up to hundreds, the globulin or Noeguchi reaction was always present, and if the case was poliomyelitis a positive Fehling reduction for sugar was always observed. It is important in making examinations of spinal fluid for the cell count to see that the fluid is obtained in a thoroughly sterile manner and received in a sterilized test tube, and the cell count should be made just as quickly as possible after the fluid is withdrawn from the spinal canal. In order to do this we used a portable microscope, so that we had an opportunity to examine the fluid within a very few minutes after it was obtained.

I have talked with very many physicians who seem to

labor under the impression that every case of poliomyelitis which occurs must necessarily be followed by more or less paralysis; this is an erroneous impression, because there are a great many of the so-called abortive cases, or as some would call them, pre-paralytic, which are cases of true poliomyelitis and can be diagnosed as such by a careful study of the clinical symptoms together with an examination of the spinal fluid. In most of the cases that proved fatal death was caused by paralysis of the muscles of respiration.

As I have not the time at my disposal I will not go into the question of the treatment of poliomyelitis at this time.

Degenerate Family History. Anna Wendt Finlayson of Warren, Pa., Bull. No. 15 of Eugenics Record Office, describes the descendents of Wm. and Mary Dack who emigrated from Ireland in 1815 and settled in western Pa. They were cousins and were both ignorant, the latter quarrelsome and the former a sheep thief. 754 descendents and -in-laws were traced. Exclusive of those dying under 20, -in-laws and those who moved away and could not be traced, 153 were left to be accounted for. None were ideal citizens but 40 were harmless and not a burden on society. 72 were shiftless, drunken, illiterate, quarrelsome, etc., but not criminal nor insane. 41 were either criminal or insane or otherwise showed marked indications of degeneracy. Otherwise classified, there were 25 insane, 20 shiftless, 39 below average intelligence, 34 ugly, 30 alcoholic, 27 notoriously irregular sexually, 18 had a habit of leaving their spouses. The worst lines were from two of the nine children of the original pair. One of these, a woman, married her cousin who was a "bad man." The other, a man, married a defective woman of defective stock. The direct traceable cost to the state of this family has been \$28,354, a small part of the total cost. (Note: Without in any way disparaging studies of this nature, it should be remembered that they tend to give an exaggerated conception of defective families. We have, for instance, no real standards of average families. If we took at random, 100 pairs of progenitors at 1815, the probability is that we would find comparatively few really valuable citizens, quite a number of shiftless, quarrelsome, drunken and mildly dishonest persons, while almost any family would show instances of sexual irregularity and one or two insane or criminal. The number who were in the habit of leaving their spouses is not far from the average. It represents about 1:9. allowing that all were married. Divorces average 1:12 marriages, and temporary separations are much more frequent).

Preliminary Classification of Mineral Springs.

Dr. FELIX VON OEFELE, New York.

The comparison basis for a medical water must be the good average water. Average water taken from a river or spring contains a certain percentage of solid matter of exclusively invalid character for mankind.

The American balneology is forced to consider the usual European classifications of mineral springs and must adapt where the European classification does not fit for American conditions. The European balneology had a historical development collecting the balneological experience of many thousand years. Exclusively observations of the small European continent have been collected. England, France, Germany and Austria are well known. Russia contains many valuable mineral springs, for instance, in the Caucasus. They are little known by the civilized world. Italy and Spain are again little known. Some time ago the writer studied the mineral springs of Roumania theoretically, compiled by a pupil of Minovici. They are not included in the area of scientific European balneology. The European arrangement of balneological systematic can not be complete. The conditions of the entire large United States do not fit in this small European systematical arrangement.

Very good drinking water may contain 0.04 to 0.05% of dissolved invalid minerals. Common spring water used for domestic drinking purposes must be below 0.1% of mineralization.

These waters usually contain as their main constituents Calcium, Magnesium with small amount of Alkalies, trace of Iron, Silica, Sulfurtrioxyde, Carbondioxyde and Chlorine. Other constituents may be present only as traces. The relationship of these constituents varies very much in different waters.

Every principal classification of mineral springs must be based on the amount and nature of the dissolved natural salts. This classification must show the relationship of the mineral constituents to the human body and particularly to the human serum. The invalid minerals mentioned above are present in an adequate amount in the human serum. This presence within the human serum renders them invalid. Again on the contrary, the ubiquity of the invalid constituents of natural waters enforced the serum of human and other beings to keep the invalid constituents in the dissolved stock of the body by adaptations.

Waters containing below 0.04% total solids are submineralized waters, 0.04-0.05% are low average mineralized, 0.05-

0.1% are high average mineralized and more than 0.1% total solids are supermineralized waters.

Carbonic acid, Sodium, Calcium, Magnesium, Chlorine, and Sulfuric acid are the common invalid constituents of every mineral water. These or their salts alone determine the character of a supermineralized water, if they amount to more than 65% of the entire total solids and if not a valid constituent of the same chemical family characterizes the water by its percentage present. Where no content exceeds 65%, a mixed name is given and every one of these invalid contents, the amount of which exceeds 25% of total solids takes place in the classification.

Potassium, Lithium, Rubidium, Cesium may be present as valid constituents together with prevalent Sodium. If such a valid constituent reaches a certain individual percentage of Sodium and if Sodium were name forming, this valid constituent would replace Sodium within the denomination. The condition is similar where Fluorine or Bromine or Iodine replaces the denominating Chlorine valid constituents, as far the respective element family contains an invalid member.

Other elements besides the element families of invalid common constituents may give medicinal value to mineral springs. Iron, Arsen, Nitric acid, Silicic acid and Phosphoric acid are examples. These or the above valid constituents of medicinal value may be present in predominant amount particularly in submineralized or average mineralized waters. They may also furnish the medical classification of mineral springs. Springs which are really and absolutely characterized by valid constituents are usually submineralized or at least low mineralized.

Some springs unknown in Europe or United States may not seem to fit into these classes, and may have exceptional representatives in foreign countries, or may be useless for the medical profession. We will therefore not go into theoretical classes without really existing springs, but a reasonable adaptation will not be difficult also for such springs.

AMERICAN AREAS OF MINERAL SPRINGS.

Mineral springs are known over the entire United States. They have to be arranged by scientific or practical means. This is possible in different ways: 1) in orographical sense by the mountain systems, 2) in geological sense by the stratigraphic condition of the surface, 3) by geological faults and systems of faults in regard to the influence of different sources of magmatic waters, 4) in historical sense by districts of cultural developments where the old Indian districts of culture are still permanent for modern communities

of interests, and 5) in political sense according to the arrangement of modern states and counties.

Every one of these five arrangements has some influence upon the systematic arrangement of the following Balneology.

The United States of North America has to be divided into areas and subdivided into districts and fields for balneological research by orographical and geological means. The individual springs have to be located by states, counties and townships.

The coarse divisions are the areas based on the orographical subdivisions of North America. With this end in view then, the principal divisions are: the Atlantic areas, Eastern Mississippi area, Western Mississippi area, decline area of Rocky Mountains, Mountain area and Pacific area.

The decline of the eastern mountain system to the Atlantic Ocean constitutes the Atlantic areas. The Atlantic areas must be subdivided by practical means on account of the concentrated population of the eastern shore into three separate areas: the Middle Atlantic area, the South Atlantic area and the New England area.

The Atlantic areas include with few exceptions the area of the 13 original states of the Declaration of Independence. The eastern declines of the Appalachian Mountains and the Adirondacks were first settled and are still the next largest cities. The mineral springs of these areas were the first to become known and to be visited. They were first developed by adaptations for white settlers. For the last fifty years they have been neglected and have been unable to successfully compete with the European mineral springs.

The Middle Atlantic Area is the middle part of the decline where the ribbons from the oldest to the newest deposits are relatively regularly arranged from the summit of the Appalachian Mountains down to the seashore. The triboundary point of Vermont, Massachusetts and New York is the most northern and Fredericksburg, Virginia is the most southwestern point. It includes the Catskills and the southeast of New York, the states of New Jersey, Delaware, the east of Pennsylvania, the east of Maryland, the east of Virginia and a small northeastern part of North Carolina.

The South Atlantic Area is less regularly arranged and starts from the point where the cretaceous deposits approach the seashore. The arrangement is still in geological ribbons but with a great many of the connecting links missing. It includes a southern triangle of Virginia and the principal parts of North Carolina, South Carolina, Georgia and Florida with the exception of a narrow northwestern ribbon.

The New England Area is arranged in a geological sense

very irregularly. It includes Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, the principal part of Vermont and a very small field of southeastern New York.

The three Atlantic areas yield waters of low mineralization and low temperature.

The Eastern Mississippi area is formed by the decline of the eastern mountains to the central depression of the United States. It includes the northwestern corner of Vermont, the principal part of New York, western Pennsylvania, Kentucky, Tennessee, Alabama, Mississippi and a narrow western ribbon of the states included in the South Atlantic Area. Thermal waters and highly carbonated waters are found on the boundary of the Atlantic areas. The mineral waters of the eastern Mississippi area usually show a higher mineralization. Sodium chlorides are found in few fields. Increased amounts of sulfates are very common constituents of this area. The sulphur culminates in rich intrusions of elementary sulfur on the mouth of the Mississippi.

The Western Mississippi Area is the western plains. The average amount of total solids contained in mineral springs is still lower than in the Eastern Mississippi Area.

The Area of Rocky Mountains decline includes the eastern part of the Rocky Mountains and their eastern decline. The most western three areas of the United States are richer in valuable mineral springs than the eastern areas. But the crowd of visitors of mineral spring resorts comes from the large eastern cities. The western mineral springs are too distant for them for an average common mineral spring cure of four weeks. The high amount of thermal springs must be mentioned especially.

The Western Mississippi Area and the Area of Rocky Mountains decline include the principal parts of the states of Wisconsin, Minnesota, North Dakota, South Dakota, Arkansas, Oklahoma, Louisiana and Texas.

The Mountain Area includes the districts from the Rocky Mountains to the Western Mountains with the principal part of Montana, Wyoming, Idaho, Colorado, Utah, Nevada, New Mexico and Arizona. The waters are commonly rich in alkali salts. Potassium shows commonly a high percentage compared to sodium.

The Pacific Area includes the decline to the Pacific sea-shore with the principal part of Alaska, Washington, Oregon and California. The mineral springs correspond to springs of active volcanic districts of the old world.

The different properties of the American springs and wells depend upon the local geological and petrographical condition. The mineral springs of the same geological system of a single area belong mostly to one, two or few fields of a

uniform classification regarding amount and kind of the dissolved minerals. In some cases the comparison must be extended to similar springs of similar geological or petrographical conditions of other areas and also of other countries. Geological basis and chemical analysis must be considered for the different groups of classification of mineral springs, but also for medical usefulness.

To explain the different kinds of rocks, we will use only the gross divisions of geology i.e. groups and systems. Sections, stages and strata of the systematic geology will be mentioned only very exceptionally. It is a fact that for instance many mineral springs of the upper states of New York are yielded by strata of the same geological age known for Wiesbaden, Ems, Karlsbad and many other famous springs in Germany. Other geological systems are very poor in useful springs in Europe as well as in America.

The crystalline rocks are the oldest geological group without trace of organic residues. Next come the proterozoic, then the palaeozoic group including Ordovician, Devonian, and Silurian systems besides others, then the mesozoic group including triassic and cretaceous systems and then the kaenozoic group including oligokaen and pleistokaen system.

Three isolated parts of present North America rose above water in the beginning of solidification of the earth's surface. There was a large shield of continent in Eastern Canada, southeast of the Adirondack-Appalachian island and a nucleus of Wisconsin island. An emerged peninsular mountain chain was an early palaeozoic product from Wisconsin to Ozark. The system of the Rocky Mountains was the following geological emersion of later mesozoic or early Kaenozoic period. The most recent elevation is the mountain system of the Pacific Coast. Original Mediterranean seas separated the newly emerged mountain systems, but later became solidified plains.

Erysipelas Treated With Diphtheria Antitoxin. Koller, *Correspondenzblatt für Schweizer Aerzte*, July 8, reports his second case successfully treated. 3000 units were injected with relief, subjective and objective in 24 hours but 1000 units more were injected on account of tenderness. The method is ascribed to Pollak, 1914.

Niece Acetone Test. This is a modification of the familiar Lange test. Ammonium nitrate 30. and sodium nitro-prussid 2. are dissolved in 80 c.c. of water. Mix 1/2-1 c.c. of reagent with 5 c.c. urine. Overlay with 3 c.c. of strong ammonia water. A purple color indicates acetone. *Med. Times*, Oct.

Grading of Milk Supplies.

S. W. BATESON, Acting Chief,

Bureau of Food and Drugs, Buffalo.

To distribute a milk supply which constantly conforms to the requirements of the New York State Sanitary Code for what is termed "Grade A Pasteurized" milk, presupposes that the dairy farms, on which milk is produced, conform to score requirements of not less than 25 out of a possible 40 points for equipment and 43 points out of a possible 60 for methods; that the cows shall be healthy, as disclosed by an annual physical examination by an approved veterinarian; that the milk shall not, at any time previous to pasteurization, contain more than 200,000 bacteria per cubic centimeter, and not to exceed 30,000 bacteria per cubic centimeter at any time after pasteurization and previous to its delivery to the consumer.

Two years of rigid investigation and application of legal procedures, have demonstrated the impracticability of obtaining strict and constant compliance with these technical requirements, and for very pertinent reasons.

During the winter months, when farmers have time to attend to their dairy interests, they may and generally do, maintain very good sanitary conditions of barns, milk houses, yards, cattle, milk utensils, and, being supplied with a plentiful supply of chilled water for refrigerating milk supplies, are able to conform, from this standpoint, with score requirements, but with the approach of the season for general farming, there is a rush of work which demands their time and attention; dairy work is neglected, barns are not regularly cleaned, cows become dirty and are not cleaned, manure, if removed from the barn, is deposited at the most accessible point, generally in the barnyard, in close proximity to the barn; farm hands come from the fields, and, in many instances, with unwashed hands, milk the cows into pails which have not received the proper cleansing since their last use; the milking of cows is the last operation of a hard day's work, and the milkers are often too tired to prolong the work, hence the necessary process of effective cooling is neglected, the milk being deposited in city dealers' cans and perhaps set in a tank of water to slowly cool as best it may. The morning milking is just as hurriedly performed and the night's and morning's milk supplies rushed to the station for shipment to the city.

This is a picture of the general conditions, milk production

being considered of secondary importance to other farm operations, and especially with labor hire at a premium.

Thus, the dairy farm score is lowered, the bacterial content of the milk increased, and the milk supply is no longer of a character to pass into the "Grade A Pasteurized" class.

An annual physical examination does not guarantee the healthfulness of the cattle beyond the time of examination, and there are many evidences of disease and injury discovered in the milk supply.

These conditions prevail throughout the spring, summer and autumn and are beyond the control of the inspector, who can only make very infrequent inspections, and leaves with the farmer a score card with recommendations for correcting deficiencies.

From the standpoint of structural conditions, the dairy farm situation has vastly improved during the past 4 or 5 years, and is steadily improving, but the attitude of farmers as to methods employed offsets the benefits which might be derived from the improved plants.

This is written not merely to censure the dairyman for his apparent indifference, for, in the majority of instances, he is at the mercy of conditions which he cannot control, but rather to prove my contention that, under general dairying conditions, as they exist in Western New York, it is impossible to obtain milk supplies, in any considerable quantity, which conform to "Grade A Pasteurized" milk requirements, and to obtain a product of "Grade A Raw" quality, is even a more difficult task.

It has, therefore, devolved upon the department of health to order a regrading of milk supplies to more nearly meet actual conditions.

I have made mention of the fact that an annual physical examination of cattle does not guarantee freedom from disease.

Any raw milk may be infected with pus bacteria, from a wounded or inflamed udder or teat or from suppurating wounds on other parts of the body; nor can such milk be guaranteed free from infections of tuberculosis, scarlet fever, diphtheria or any of the multitude of infectious or contagious diseases to which man is heir.

Therefore, it is evident that some protection must be afforded to consumers of the lacteal fluid, and that protection is procured by perfect pasteurization followed by rapid cooling to a temperature below 50° F., and preferably in the final package to guard against possible recontamination.

The foregoing statement implies that the branding of our general milk supplies as of a grade above "Grade C" may be a misrepresentation, not necessarily intentionally; but never-

theless, a fact, which, I believe, calls for a revision of the code as it relates to the grading of milk supplies.

The interest of health officials is to secure to the public, a product as clean and safe as it can be produced, and without the misleading features of a grading system.

Knowing the facts about milk production, it is not difficult to conceive of the evil possibilities of consuming any raw supply, for the discovery is made that not even "Certified" milk is of known absolute purity at all times.

A milk supply, containing not to exceed 500,000 bacteria per cubic centimeter, free from pathogenic bacteria, may be characterized as a safe milk, but who knows whether it is free from infectious elements, for it is impossible to test every particle of milk daily; hence, again, the necessity for emphasis on perfect pasteurization; but no pasteurized milk for sale to the public should contain, at any time, more than 100,000 bacteria per cubic centimeter.

With a modification of the code to provide for a supply of milk not to exceed 500,000 bacteria per cubic centimeter before pasteurization, and not to exceed 100,000 bacteria per cubic centimeter, at any time prior to delivery to consumer, the municipal health department could demand a fairly strict observance, interdicting the supplies of any dairyman found to be persistently derelict, and penalizing or prohibiting milk dealers who fail to obtain specified results of pasteurization.

In any event, the need is for perfect pasteurization of all milk supplies, which should not be difficult, as, already, approximately ninety per cent of the supply of our city is being pasteurized and that without legal requirements.

Alkaloidal Affinities of Hydrous Aluminum Silicate. John Uri Lloyd, Ec. Med. Jour., Sept. Adsorption of various alkaloids, with consequent removal of their toxic properties, is demonstrated both by animal experiments and quantitation after treatment. From Fuller's earth Lloyd has prepared a reagent analysing approximately 17.41% water, 55.30% Si.O₂, 9.82% Al 223, 14.18% Fe 203, 1.58% Ca 0. Various analyses of Fuller's earth, kaolin and other clays are given and although, barring impurities, the analyses do not vary greatly, the adsorbent properties of many are almost nil. The reagent, i.e. the anhydrous aluminum silicate is not affecting by drying or treatment with RC1 HNO₃ or aqua regia but the silicate has its water of crystalization driven off at a red heat. The reagent is employed for the extraction of alkaloids from crude drugs but, while of some value in the treatment of poisoning, is not claimed to protect against large doses.

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Military Preparedness.

Various quantitative estimates in the discussion of preparedness suggest a point that ought to be obvious but that seems to have been almost universally overlooked. Luxembourg is a good deal better off than Belgium.

Those Were Happy Days:

When the doctor could shake his head sadly and murmur that there was nothing to be done—and do so with a clear conscience.

When almost any well informed physician could, in his spare time, do research work that deserved respectful consideration.

When almost any group of seven physicians could hire a building and start a medical college that would pay expenses and even salaries.

When social position, a little money and an aggressive disposition would not only secure a large practice but professional prestige.

When almost any practitioner could speak patronizingly and sceptically of germs and bacteriologists.

When we could sit on the branch of preventable diseases, saw away on it, on the side nearer the trunk, have a sense of personal righteousness and, at the same time, the comfortable economic assurance that it would be a long long time before we produced any weakness of our support.

When the quack travelled with a tent, a band and a ventriloquist's outfit, instead of having a college degree and a better X-ray equipment than our own.

When a doctor could make more of an impression with a \$350 horse and buggy than he can now with an \$800 automobile.

When the boy who restrained his impatience to study medicine till he had done three years' high school work, could feel that he had voluntarily made a heavy sacrifice to the cause of educational preparedness.

When internships were frankly stated to go, like kisses, by favor and not according to merit.

When no one accused professional organization of being a vast medical trust controlled by a few but when each little, local society was an independent camp and often in a state of internal discord.

Endorsed Hospitals.

The Annual Report of the Chief of the Medical and Surgical Staff of St. Luke's Hospital, in Utica, New York, to its Board of Trustees, makes an argument regarding the relation of the small endowed, or semi-endowed private hospital, to the community that supports them. That there is such a responsibility, no one can deny. He quotes from Dr. Winford Smith, superintendent of Johns Hopkins Hospital, as follows:

"In this country it can be said without fear of contradiction, that the best hospitals and those that have contributed most up to the present time, to medical education and scientific work, and which have been managed most efficiently in the interests of the patients, have been endowed hospitals." (From the Journal of the American Medical Association, Oct. 1915).

"It is too true that in those hospitals supported by municipalities or by the State, politics both in the selection of men who shall do the work, as well as in the equipment which the best men must have in these days to make a hospital successful, interferes so largely with the management that the best men prefer to work in private or semi-private hospitals. The day has come, however, where a certain amount of research work ought to be done in all hospitals, where the statistics are sufficiently large to make even a small contribution to the science of medicine—because this is, after all, the contribution which a hospital should make to the community. If a hospital is supported by private subscription of a large number of people, there should be some return to the community that these subscriptions represent which is, in a way,

adequate. Such must be the case, or else ultimately the private hospital will fail of its support.

“Research work, however, cannot be continued on any considerable scale without the expenditure of more money than most hospitals, even those of endowments, can afford. In large cities it comes about that the hospitals may be so grouped in their interests that the research work may be done in especially constructed institutions, the material for the work being furnished by the hospital, and the support of these institutions being either municipal or in a few instances by large endowments.

“At the present time the hospital that contributes most to the community and is of the most importance to the profession is the one in which the most accurate diagnosis are made. It is to this great middle class of people that the well organized hospital may contribute most. It is not necessary that formal consultations of a large number of well trained men who look over the cases and give opinions regarding them should be frequent, but a staff of men who have the bond of friendship and the sense of esprit de corps, and the opportunity to frequently meet and discuss matters of importance, and with a willingness to give quick advice, in friendship and counsel—all this is of infinite service to the one in charge of the case.

“It would seem, therefore, that it is coming to be the function of the hospital to be the clearing house for obscure cases and cases of dire emergency; and chiefly in the care of the mass of people who are neither very rich nor extremely poor, for the two latter classes are already provided for.”—W. E. F.

Hospital Economics.

No one will dispute the general statement that there is a demand for relatively cheap hospital care of patients. Private room accommodations at somewhere between \$12 and \$20 a week, in addition to professional fees and incidental losses, are obviously a heavy strain on incomes of from the same to twice these amounts. When half to all of the family income is expended on one member of the family, with only a slight proportionate saving in food which is counterbalanced by an incidental increase of general domestic upkeep, it needs no argument that we are dangerously near the breaking point at which the family is driven in to more or less honest pauperism, with a permanent abandonment of ideals of thrift and old-age saving, if such had been entertained. Unquestionably, the financial strain of the first baby has made dead beats of

young men of originally honest intentions but who had not fully comprehended the extent of the financial responsibilities imposed by marriage. Yet almost all young couples of moderate income agree that, merely from the financial standpoint, the hospital is preferable to the home care of a labor case.

The community, as the responsible provider for the dependent class, finds that it must either pay between \$1.25 and \$2 a day for the hospital care of persons whose total income may not actually exceed these figures and rarely reaches so great a per capita income, or must itself be a dependent upon the voluntary gifts of the public.

In no spirit of criticism of hospital management and with no assumption of the knowledge of how the problem is going to be solved or whether it can be solved at all, we feel that as a general matter of economics, civic and professional, the gravity of the problem should be realized and that at least an earnest attempt should be made to solve it. Even the proper self-interest of the profession, gives it a peculiar duty in this regard. Every man who has been the recipient of medical charity in a hospital or who has set aside the temptation to receive such charity at great sacrifice, is to a degree trained to demand subsequent free medical attendance under any circumstances, as a right. The Buffalo Health Dept. has recently published a reply to a protest against the general right of the physician to receive pay for his services. The fact that it has even been considered necessary to present any argument on this point is a serious indication of the trend of popular opinion. Whenever any considerable number of persons, however excused by ignorance and however illogical, conceive that medical attendance is something due them from the community, it will need a revolution of professional economics in a way already demonstrated by European precedents, to be highly undesirable to the majority of the profession itself and probably tending ultimately to a degradation of the profession, even from the standpoint of efficiency.

There are various reasons why we feel hopeful of the satisfactory solution of the problem of hospital fees. The strictly professional attendance involved is eliminated since it is no more expensive for the person who pays his own way than for home attendance and since it is freely given to the poor in the wards. Even the slight increment of interne assistance is distributed over a large number of individuals and amounts merely to the expense of board and washing and a nominal honorarium. Nursing is similarly susceptible of distributive economy and is paid for, to the degree of about 50% in instruction. The hospital is established by voluntary donations and is free from taxation. Heat, food, washing and supplies,

including medicines, are purchased in quantities or maintained on a scale sufficient to secure a much lower ultimate cost than in private homes. We do not overlook the fact that the standards of living and care which would obtain in the homes of the very poor are not up to those which must be maintained in every properly conducted hospital simply from humanitarian motives, not to mention the fact that in giving their service, the attending staff have a right to demand that they shall be properly supplemented by other factors, without undue regard for economy. We have known of cases in which, properly, a single drug used, cost more than the entire amount paid by the city—but we have known of analogous cases in which this form of expense was not even justified by the laudable desire to acquire clinical experience.

We repeat that this article is not written in a spirit of criticism but it is vitally important to study the problem carefully and to solve it as completely as possible.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Mortality Statistics, 1914, issued by the U. S. Bureau of the Census, is acknowledged with thanks.

In contrast with the recent epidemic, it is interesting to note that acute anterior poliomyelitis caused only 620 deaths in the entire registration area whose population is about $6\frac{1}{2}$ times that of N. Y. State. 397 were in males, 323 in females; 220 and 196, respectively, or a total of 416 (almost exactly $\frac{2}{3}$) were in children under 5. It is significant, however, that from this point on, the decline was quite gradual, 4 deaths being listed for the quinquennium 75-79 years. Measles causes about three quarters of its fatalities under 5, and scarlet fever a little less than half while both show the same gradual decline with increasing age and persistence of fatalities due to advanced ages. Whooping cough causes 97.3% of its fatalities under 5, shows, therefore, a more marked decline after this age but also persists to advanced ages. These are, we believe, the only infections that can be considered characteristically children's diseases. When we analyse the meaning of this expression, it implies semelincidence, i.e. practically life-long immunity after an attack, a failure of hereditary immunity unless very recently after a maternal attack, so

that "children's diseases" are those to which the whole human race is more or less susceptible and thus, they occur in children merely in accordance with the law of chance. Small pox, before the use of vaccination, was equally a children's disease and the explanation of the change in this respect is too obvious to require discussion. There was no large epidemic of poliomyelitis in 1914 and the statistics are all the more enlightening for that reason. They show that this disease, to which the term infantile has been applied, occurs throughout life, like other general infections; that it is not significantly more infantile than scarlet fever, somewhat less so than measles, and decidedly less so than whooping cough. It is a proper logical principle, to suspect the reality, as an independent and essential condition, of anything that is exceedingly rare and this principle has been applied by many to poliomyelitis. But we note that, in an off-year, this disease shows a mortality of 1/7-1/10 of the disease generally accepted as specific infections to which the human race is markedly susceptible. Owing to the differences in mortality, the ratio of incidence is, of course, much smaller but this fact operates in the opposite direction also, by removing the constant reminder of the existence of a disease, by case histories. Thus, the mere study of statistics, shows that poliomyelitis is by no means out of analogy with the other so-called "children's diseases."

Physiologic Chemistry. Albert P. Mathews, Ph. D., Chicago. Wm. Wood & Co. 1040 pages, illustrated, \$4.25, 2d edition.

We have previously reviewed favorably the first edition. We want to commend this book especially to the general practitioner, as throwing light on many phases of bodily function. While strictly a scientific text book, the author describes many clinical methods of analysis which can be carried out in a simple laboratory, and uses an almost popular style in describing the results of metabolism experiments, ferment action, etc., so that the deductions from highly technical chemic research are available to all. The thoroughness of the table of contents and the index, and the copious bibliographies also add to the value of the work for reference. As a laboratory guide, the book needs no introduction, but the broad conception of vital processes and the elucidation of many vaguely understood matters of diagnosis and therapeutics dependent upon such a conception are points which the physician might not realize.

Diseases of Infants and Children. Henry Dwight Chapin, A. M., M. D., and Godfrey Pisek, M. D., Sc. D., N. Y. Wm.

Wood & Co., N. Y. 578 pages, 179 cuts, 12 colored plates. \$3.25, 3d edition.

This work contains numerous tables and diagrams, of which latter the ones representing graphically the weights and measurements of infants are especially novel. While hygiene, feeding and general methods of examination, diagnosis and management are well treated, the work is mainly what it purports to be and what some text books with similar titles fail to be through undue attention to generalities. That is, it really discusses in detail, the diseases of infants and children.

Vaccine Therapy in General Practice. G. H. Sherman, M. D., Detroit, author and publisher. 3d edition, 523 pages, \$2.50.

This is an exhaustive, practical treatise, covering not only diseases commonly recognized as infectious, but those ultimately due to infection, as diabetes (inflammatory reaction in the insulae of the pancreas), goitre, etc., as well as various inflammatory conditions, as of the respiratory passages, commonly recognized as infectious but not in the ordinary sense specific. From experiments by Vaughan and others, it is concluded that toxic phenomena of fatal degree would require about 450 m. g. of bacterial proteins, corresponding to about 2 quarts of average bacterial vaccine. The author has never serious anaphylactic phenomena. The negative phase is important only in tuberculosis. Hence, generally speaking, vaccines are harmless, even if not successful. Autogenic vaccines are considered as theoretically rather than practically superior to stock vaccines, and there are flaws even in the theoretic advantages of the former. At the same time, the author is not a biased enthusiast, but speaks conservatively of the general method, and candidly reports failures and discusses the probabilities of success and failure in different types of cases.

Ethnology of the Tewa Indians. Wm. M. Robbins, John Peabody Harrington and Barbara Freire Marreco, Bureau of American Ethnology, Bulletin 55.

This is an extremely interesting compend, including many references to language, customs and rites.

Institution Quarterly. Vol. 7 No. 3, Sept. 30, 1916. Issued jointly by the State Board of Administration, State Charities Commission and State Psychopathic Institute of Illinois. Editor-in-chief, A. L. Bowen, Springfield.

The present issue, aside from administrative and economic details, deals mainly with sociologic problems.

Practical Bacteriology, Blood Work and Animal Parasitology.

E. R. Stitt, A. B., Ph. G., M. D., Medical Director U. S. Navy. P. Blakiston's Son & Co., Philadelphia. 497 pages, 4 plates, 115 other illustrations, \$2.00 (4th edition).

This work, already favorably known through earlier editions, is condensed in style and arrangement, but as the word condensed as applied to books, is often used to imply abbreviation and omission, it might be better to say that the contents of this book are compressed. The pictures are small and not very good yet, somehow, they illustrate better than more imposing photographic reproductions, and without being semi-diagrammatic either. There is an originality of treatment of the whole subject which makes a very favorable impression and which is difficult of analysis. Perhaps this is because the author knows just how far condensation may safely be carried without omission of important details and without rendering a description inadequate; when to illustrate and when to describe in words; when to use a tabular classification and when this method stretches facts; when a cross reference or allusion to general principles suffices and when a particular description is necessary.

The Genus *Hippochaete* in North America, North of Mexico.

Oliver Atkins Farwell, Detroit. Reprint from Memoirs of N. Y. Botanical Garden.

These plants are named from their resemblance to a horse's mane, and are related to the equisetum or horse tail rush, used medicinally.

Muscle Training in the Treatment of Infantile Paralysis.

Wilhelmine G. Wright, Boston. Published by Ernest Gregory, Boston. 2d edition, 30 pages, paper cover, 25 cents.

How to Live. Irving Fisher of Yale University and Eugene Lyman Fisk, N. Y., Director of Hygiene of the Life Extension Institute. Funk & Wagnalls Co., N. Y. 8th edition, 345 pages, \$1.00.

This is a popular book on personal hygiene authorized by the Institute. It differs from the ordinary type of hygienic text book in presenting statistics gathered from various sources, and in considering the individual as a member of society rather than a unit. Thus the trend of the work is largely

sociologic. Considerable attention, therefore, is logically devoted to eugenics and the work, though popular, is scientific.

Human Physiology. Albert P. Brubaker, A. M., M. D., Philadelphia, P. Blakiston's Son & Co. 5th edition, 776 pages, 359 illustrations and 1 plate in color, \$3.00.

It may not be out of place to call attention to the surprising cheapness of this work, merely on a basis of bulk. Moreover, while not unduly crowded, nor in fine print, the arrangement of the work gives the maximum of reading per page. Thus, in extent, the work may fairly rank with the major treatises in this or any other branch of medicine. It is in no sense a brief or condensed text book. The reputation of the author and of his book—remembering that these are by no means necessarily cognate—are already of the highest rank. Metabolism experiments, including those in calorimetry, the internal secretions and the correlation of clinical chemistry and microscopy with scientific study of such divisions of the work as digestion, circulation and the blood, urinary organs, etc., show a considerable advance since the fourth edition. An appendix dealing with physiologic apparatus, which will be somewhat disappointing to anti-vivisectionists, is added to the work.

Pharmacology and Therapeutics. H. C. Wood, Jr., M. D., Philadelphia. J. B. Lippincott Co., Philadelphia. 2d edition, 455 pages, \$4.00.

Like his illustrious father, whom the reviewer was so fortunate as to have among his teachers, Dr. Wood follows the method of classifying drugs as to physiologic action but, comparing the present classification with that in vogue 30 years ago, one notes a considerable advance in scientific pharmacology, especially noteworthy in the more general grouping of classes of drugs. The preliminary discussion of pharmacology is similarly, familiar and, at the same time, shows progress. It is perhaps a personal bias that leads to the question as to whether the metric system is "rarely employed" in this country generally although it is, unfortunately, used in the minority of cases, even after 50 years of legal establishment. Ionization is well discussed, with one regard to its present status in practical pharmacology. It occurs to us that the time is ripe for a general and subclassified discussion of the effect of drugs on the reaction of fluids, both from the theoretic and the practical standpoint, as well as of adsorbents, as a general class. Also the solvent effects of drugs upon calculi should be generally discussed, even from

the negative, sceptic standpoint. This is, at least, a live issue with the profession as a whole, and many who do not believe that there exist solvent drugs, which adds greatly to the comprehension of the subject. So, too, his personal studies in scientific pharmacology and the correlation of experiment and experience, enhance the value of the book. Such a work as this is, unconsciously perhaps, a protest against the recent elimination of therapeutics from the strictly medical curriculum, by at least one prominent institution.

Patience Worth, a Psychic Mystery. Casper S. Yost, published by Henry Holt & Co., N. Y.

This book has already attracted much attention from medical journals. It purports to be the communications, by ouija board, of a lady who is rather vague as to the period of her sojourn on earth but who was pinned down to the date 1649, on one occasion. The communications consist of epigrammatic, tart and interesting conversations, stories of mediaeval life and some poetry. As is characteristic of language in general, the last does not show much difference in idiom to modern compositions, the stories are decidedly archaic and—as is also to be expected in literature—mainly set by implication at a considerably earlier period than the seventeenth century, while the conversational idioms and forms impress us as being a good deal more different to modern English than would be expected. The claim that Patience Worth, whoever or whatever she may be, steers clear of anachronisms of allusion to modern environment, seems justified and the differences in style with reference to antiquity of language, among the conversations, poems and prose stories, is not necessarily an anachronism. Without claiming to be a critical language scholar, we are rather dubious as to whether English people of the middle of the seventeenth century used the peculiar, at times almost unintelligible idioms, confused the second person pronouns as to number and case and, in general, spoke so differently from present standards. While granting the interest of the book, as a literary production, we cannot, even under the guidance of the editor, enthuse to the degree constantly demanded, as to the excellence of the stories and poems. Without in any way disputing the sincerity of the transcriber from the ouija board, and the participants in the reception of the messages in St. Louis, we beg to retain more of the Missourian spirit than they themselves.

Secrets of the German War Office. Karl Graves.

Some months ago, we reviewed this book, very sceptically.

Recent events, fully presented in the newspapers, confirm our impression that the book was to be read simply for its literary interest.

Medical Record Visiting List 1917. Wm. Wood & C., N. Y.●

This is issued in 3 regular sizes, for 30 patients a week, dated or undated, \$1.25; for 60, dated or undated, \$1.50; for 90, dated only, \$2.00. Extra quality lists are also available at prices ranging from \$2.50 to \$4.00 and fillers for the leather wallets can also be purchased at 30 to 50 cents for 6 months. This Visiting list is standard through many years' use, contains a vast amount of valuable information for emergent reference and is almost perfectly adapted to the needs of any practitioner.

Poverty and Health, 39th Annual Report of the Charity Organization Society of Buffalo inclosing as a separate pamphlet, **TEN TALES** (illustrated) by Frederick Almy, Secretary, which present examples of the work of the Society in clinical form. We bespeak the careful reading of these pamphlets by the medical profession.

TOPICS OF PUBLIC INTEREST

Proposed Uniform Legislation Regarding Traffic in N. Y. State. In accordance with action taken at the conference of mayors and other city officials, a tentative draft of a law has been made, which is now submitted to the various cities of the state for endorsement. This is too long to publish in full but it may be said, in general, that it is a collection of existing laws and customs, with the significant exception that regulations that have been shown by experience to be unwise are omitted or rescinded, and that the general principle is established that local governments may not tax or make unreasonable and peculiar limitations to the use of the public highways by the public. As a whole, the proposed state law is sound, reasonable and fair, and will undoubtedly be copied in its essential features by other states. Being still subject to scrutiny, we take the liberty to offer the following suggestions:

Section 22. A right hand signal is required of the driver of an automobile before reducing speed or stopping. This is obviously impracticable and even dangerous for left-hand drive cars, now in the vast majority. In congested districts

any signalling by hand is often impossible, so long as automobiles are constructed as at present and so long as human beings continue to be limited to two hands. It is rather implied elsewhere that the driver of a car in the rear of another in the congested district shall act independently of such signals, but the law should be explicit on this point. Hand signalling for right hand turns should not be required at all in cities, as following vehicles do not need them if they observe ordinary traffic rules, and as pedestrians are better warned by sound of horn, etc.

Preliminary definitions. A district in which dwelling houses average "less than 200 feet between them for a quarter of a mile" is scarcely a congested district, and the tendency of small hamlets to emphasize their importance should be curbed rather than encouraged. In this connection it may be suggested that, as many villages and cities have included much open country in their boundaries, Thank You signs should be placed where the actual urban or village population begins, as indicated by pavements, sidewalks and the occupation of, say 25-50% of the frontage by buildings.

Section 56. "No vehicle shall remain stationary on any street, avenue or public place for a longer period than four hours." As a general rule, this is proper enough, but a law ought to be enforced or changed. A good many social functions last more than four hours, so do labor cases, and a physician, expecting an emergency call of any kind ought not to be compelled to get up and move his car in the night, unless he has to do so to meet the expected engagement. Again, strangers coming to town on business, are often prevented from returning to their cars within this time limit.

Section 66. "Disabled vehicles shall not be left on the street longer than three hours." This again is sound on general principles but, in a great many special cases, it is striking a man when he is down. An exception should certainly be made of the night hours. Merely waiting till day often means a comparatively simple and cheap adjustment or repair instead of a heavy mechanic's bill. For electric vehicles, it means running on a recuperated battery instead of being towed. In the writer's experience, police officers have been uniformly considerate and reasonable in regard to crippled cars, and the law should not prevent them from continuing to be. The law might reasonably require the owner or operator of a crippled car to report the case by telephone, unless himself so much damaged as to be unable to do so, and it might further require the lighting of the car, including the attachment of lanterns by the police and a reasonable charge for the service, when the lights of the car itself cannot be operated.

Section 91. This requires attention to all signs posted to direct traffic in any way. This is, on general principles, wise, but it must be remembered that drivers have only two eyes, must see in 120° of arc at all times and in 360° often. It is impossible that the most careful and conscientious driver shall see every sign posted and due allowance should be made for this fact. If this provision stands, it should be accompanied by the further provision that advertisements and other non-pertinent notices should be excluded from positions along streets and roads where traffic directions would naturally be looked for. Drivers are already annoyed by slowing down or stopping to secure information as to directions and distance, and finding that they are instead being informed as to what cigars they should smoke, or that a school tax is due or that a farmer is going to auction off his stock.

Section 95, defining the powers left to local authorities to frame ordinances to provide for special local conditions, should be modified so as to secure the endorsement of some general board before any such ordinance becomes effective.

As stated, the proposed law is excellent. It is not only a good traffic law, but it establishes, or at least confirms two important general precedents—the limitations of local and arbitrary legislation in the interests of a class, the resident as opposed to the non-resident population, and the principle that the pedestrian has responsibilities as well as privileges. It is to be hoped that the tentative provisions may be carefully criticised so that the law as passed shall be as near perfection and permanence as is humanly possible.

Narcotic Laws. Practically all states and dependencies of the U. S. have some form of narcotic law, as well as a few cities. The Alaska law applies only to opium; those of La., Miss., Pa., S. C. seem to apply to cocaine only. N. Y. and Va. also require prescriptions for hypodermic syringes. Prescriptions for narcotic drugs are required by practically all. Nev. allows dispensing only by pharmacists, otherwise physicians are either allowed to dispense or “administer” under various restrictions. Ariz., Calif., Fla., Me., Mass., Minn., Utah and Vt. require a record to be kept. Col., Conn., Ill. require a record unless the narcotic is administered during personal attendance. S. D. and Tenn. require a duplicate of the prescription to be kept. Conn. and Mass. (and N. Y.?) specify amounts not requiring record. Me. and N. D. prohibit administration to addicts. Miss. allows administration to addicts only for immediate preservation of life. Strangely enough, the refilling of prescriptions is prohibited only by Conn., Fla., Ill., Mass., and Neb. (?). Possession of a narcotic by the laity is prohibited in most states. Some special requirements

are as follows: Ariz. requires consultation and report to local health officer after narcotics have been prescribed for 3 weeks. Calif. requires the reporting of names of addicts within 24 hours to Board of Pharmacy and provides for commitment of addicts. Delaware requires that narcotics must be labeled and must be sold only to the sick. Fla. requires that reports of narcotics be sent to local health officer within 3 days and that addicts refusing treatment be reported to local health officer or county judge. Incurables, after investigation, by board of health or judge, may have special permit. Idaho provides for revocation of license if the law is broken. Ia. includes cocain, cotton root, ergot, tansy and savin. The Kas. law applies to morphine, cocaine and chloral. Nev. requires copies of all orders for narcotics to be mailed to the board of pharmacy within 24 hours. Okla. provides for teaching the effects of narcotics in the public schools. Ore. holds it unlawful for any person to manufacture, sell or dispense any drugs unless he is a registered pharmacist. (Condensation of table in Medical World, Nov.).

It would seem, inasmuch as the national law regarding narcotics has got around the constitution by adding a tax on physicians, that all states might unite on this law, provided that it be modified in accordance with common sense, and interpreted by authorities having some rudimentary knowledge of drugs. The inclusion of apomorphine and the ruling that personal attendance does not mean what it says except under special circumstances, as well as numerous other inconsistencies to which we have called attention from time to time, shows that this provision is not a figure of speech. The state laws mentioned afford valuable suggestions as to amendment, some by very wise provisions, some by very foolish ones, as the obvious attempt in the interests of druggists to exclude physicians from the proper use of drugs by personal dispensing.

A Modern Solomon. The Illinois Medical Journal narrates the case of a man aged 65 convicted of criminal assault on a young girl. As he was in poor health (?), the court felt that the usual prison term would amount to imprisonment for life and therefore gave the alternative of sterilization and freedom, which was accepted. Here we have an elderly degenerate, relieved of all anxiety as to offspring, turned loose on society, with a warning to observe certain age limits. The press reports implied that the judge thought that sterilization meant immunity from venereal disease. Balzac has a story that begins in the same way but in which the accused is turned loose from the gallows by demonstrating the preservation of his sexual power to an advanced age. It is a question

whether the mediaeval or modern "justice" was the more rational.

The Medical Corps of the U. S. Navy has been increased by 300 by recent legislation.

The Mann Law is before the U. S. Supreme Court for argument regarding its applicability to voluntary trips for immoral purposes, where the element of white slavery or undue suasion of young girls is absent. It has already been shown that this act is a great assistance to black mailers and, at the beginning of the discussion, we called attention to the danger of legislation on matters of pure ethics and morality, not involving damage to person or property rights. Something must be left to the individual conscience if we wish to develop a sense of personal responsibility and legislation on matters of abstract right and wrong comes dangerously near the line of personal and religious liberty.

War Losses. Frank H. Simmonds (N. Y. Tribune, Oct. 22) estimates the war losses as follows: As a matter of interest we give comparative estimates by newspapers, up to May 31, 1915.

	26 months.	10 months.
France	2,500,000	1,300,000
Russia	5,750,000	3,780,000
Great Britain	1,400,000	471,000
Italy	350,000	
Belgium		113,000
Total Allies	10,000,000	5,664,000
Germany	4,000,000	4,000,000
Austria	4,000,000	4,385,000
Turkey		349,000
Total, Central Powers.....	8,000,000	8,734,000

Obviously, the earlier casualties were exaggerated, though perhaps by failure to consider the fact that nearly 90% of the non-fatally wounded are restored to service. English tabulations of official German reports show a total loss of 3,755,692 for the first 27 months of the war. Of these 910,234 were deaths. Allowing for delayed reports, especially of missing and prisoners, Simmonds' estimate seems conservative. He calculates that the central powers have lost about 1/3 of their man-power and the allies about 1/6. But, each year, for quite a while to come, about 1/10 of the 10% of military strength of a nation, will be compensated by the rising generation.

Smuggled and Fraudulent Neosalvarsan. A Federal grand jury has indicted Dr. Jean F. Strandgaard of Toronto and a

steward on the steamer United States both for smuggling neosalvarsan and for preparing a worthless substitute. During July, Strandgaard had 15,000 ampoules blown in Jersey City and filled with starch or salt. Since then, clever imitations of German and especially English packages have been peddled by women in N. Y., Chicago and various cities of the middle west and south. Physicians are warned of the danger of purchasing these drugs of unreliable persons and are requested to inform Chief Inspector E. R. Norwood of the Customs Service in N. Y. City of attempts to peddle such wares.

Increase in Medical Corps U. S. Army. Transfers From Reserve Corps. The Hay bill, effective June 3, 1916, provides for a total of 1553 medical officers, the present strength being only 336. 336 officers of the Medical Reserve Corps are on active duty, to make up for the temporary shortage. Mr. Gandy has introduced a bill in the House, providing for the transfer of members of the Reserve Corps to the Medical Corps of the Army, with promotion to the rank of captain, to take relative rank according to their length of service, but below captains in the regular medical corps. This transfer and promotion is irrespective of age but subject to examination, satisfactory service and five years' military service, including that as contract, or volunteer surgeon or under enlistment. It is proposed also to allow as an alternative, four years' in the Public Health Service. This bill and the amendment should be approved. Indeed, under the present circumstances, it would seem wise to admit to the Army Medical Corps, physicians who have had reasonable experience in almost any kind of military or government service, subject to such examinations as might establish a reasonable degree of proficiency. The sudden, relatively enormous increase in the nominal strength of the medical corps, amounts to nearly half of the total number of medical graduates for any one of the last few years and probably exceeds the number of men available according to ordinary standards of appointment. The requirements as to post-graduate hospital experience on the one hand and as to age on the other, practically limits eligibility to the classes from 1910 to 1914. It seems doubtful whether 1100 men could be found in this total who would be desirous of army service and who would meet the physical and intellectual requirements established by precedent. If they could be found, it would be highly undesirable to have approximately 3 quarters of the army medical corps in so nearly the same age group as this would block promotions for many years to come and would then suddenly call for very rapid promotions and a large number of new appointments. By filling the present sudden increase in the personnel of the

corps with men of moderate military experience and of widely different age, many embarrassing problems both of the present and the future would be obviated.

The High Cost of Living. The increase in the price of milk is ascribed to demands on the part of the ultimate producer, explained as necessary because of demands by the ultimate consumer through the various health departments for a rich and clean product. In this connection, it is interesting to note the complaint of a milk producer that the dealers were not willing to split "50-50" with him but wanted at least 60% of the advance. It is evident that milk produced under modern conditions can not be so cheap as under those formerly in vogue and that milk of full nutritive value and insured so far as possible against tubercular infection, manure bacteria and ordinary germs of fermentation, is worth more than the former city milk. But the main element in increased cost of foods is that everyone wants more for his day's work than formerly, and a great deal more for his hour's work. We can't get away from the fact that the unit of labor is the ultimate unit of value. In some instances, labor may be systematized and aided by machinery so as to permit a cheaper monetary cost in spite of high wages but this does not apply to food industries in general where direct human labor remains the most important factor. Let us not forget that, in proportion to its necessity, food costs less in terms of average labor of the consumer, than ever before. Present exceptions are largely due to disturbances of supply and demand due to the war and, in more cases than we realize, the present high prices are lower than those prevalent 50 years ago, and probably only temporary. Tea, coffee, sugar and flour are illustrations.

The National Board of Medical Examiners, through the Secretary, J. S. Rodman of Philadelphia, report that the first examination was held Oct. 16-21 at Washington. 32 applications were received from 17 states and 24 medical schools. 16 were accepted as having qualified for examination. 10 took the examination and 5 passed: Harry S. Newcomer and Wm. White Southard of Johns Hopkins, Orlow C. Snyder of the University of Michigan, Thos. A. Johnson and Hjorleifur T. Kristjanson of Rush. The next examination will be held in Washington in June. Application should be made to the Secretary. (Note: While the policy of this journal has always been in favor of high educational requirements, it occurs to us that these statistics indicate a much higher demand than can be enforced as a practical requirement for license and that if the National Board is to acquire official recognition

and ultimately supplant the state system of licensure, it must adhere to a lower standard. These figures are about what would be expected from an examining board for the army, navy or public health service).

The Dept. of Arts and Science, University of Buffalo announces a course of lectures, Mondays, 5 p. m. in Townsend Hall, Niagara Square, to which the public is invited free. Frank H. Severance, L.H.D., Secretary of the Buffalo Historical Society, will give a series of lectures on the History of the Niagara Region, Nov. 13-Dec. 4, Chas. E. Rhodes, M. A., will lecture Dec. 11 on Rambles in the Lake District.

U. S. Civil Service Examinations will be held Dec. 13, at various places as determined by the residences of applicants, as follows: Physicians, Indian Service, \$1,000-\$1,200. Panama Service, \$1,800. Dental Interne, St. Elizabeth's Hospital, Washington, \$600. Those wishing to take the examinations should apply to the Secretary at Washington, for details as to requirements, etc.

Smoke Consumption. Osborn Monnett addressed the Greater Buffalo Club Nov. 22, on the Smoke Nuisance. He advocated the use of powdered coal, crude oil, and proper stoking. Smoke eliminating apparatus for a locomotive could be installed for \$75.

The Alvarenga Prize amounting to \$250 will be awarded by the College of Physicians of Philadelphia, July 14, 1917. Essays may be upon any subject in medicine, must not have been already published, must be type-written in English and must be in the hands of the Secretary, Dr. Francis R. Packard, 19 S. 22 St., Philadelphia, by May 1, 1917.

Paratyphoid Carriers. The 14th Regiment had 130 cases and furnished 40 healthy carriers; the 71st, 14 cases, 5 carriers.

Lebanon Hospital, New York City, Surgical Clinics, Wednesdays, at 3 o'clock, held by Dr. Parker Syms and Dr. M. R. Bookman, Nov. 1 to Mar. 1. Take Subway West Farms Division to Jackson Ave. Station. See Daily Bulletin, Academy of Medicine.

Buffalo Public School Registration. For 1915-16, the registration was 51,636 for 1916-17, 52,185 in grammar schools. In high schools the respective figures were 5,641 and 5,469. It should be noted that these statistics show a relative decrease with regard to normal change of population and an actual

decrease for high schools. It is explained that the scarcity of labor and resulting high wages explain the diminution.

Taxation of Visiting Automobiles. The U. S. Supreme Court will shortly consider a test case, based on the requirement of a state license by New Jersey—which is simply one example selected—and the decision will bear on the constitutionality of a bill introduced into congress which provides that the payment of a tax in one state shall relieve the owner of any further obligation to take out state licenses. There is ample precedent that any state should accord the courtesy of the use of its highways to a visitor from another state who has complied with local laws. So far as we know, no state has ever attempted to tax a visitor on foot for the use of sidewalks nor to tax for the use of roads, any vehicle except bicycles, automobiles and motorcycles. Tolls will probably not be affected by the decision but it may be pointed out that in the more enlightened states, there is a strong tendency toward doing away with tolls of all kinds. Physicians of Washington who are at present practically compelled to carry licenses for the D. C., Va. and Md., will be especially interested in the decision. In passing it may be remarked that tours southward to Washington cost about as much for tolls as for gasoline and that the delays in paying toll aggregate the average for punctures and blow-outs.

Endowment of Medical School of University of Chicago. The Rockefeller Foundation has appropriated \$2,000,000, the University will appropriate at least as much beside furnishing a site worth \$500,000 and it is expected that about \$3,500,000 will be raised by subscription, making a total of \$8,000,000. Good, but—suppose the \$2,000,000 and whatever could be raised by popular subscription stimulated by a gift from without, were distributed among about 50 medical schools that fill local needs, that are conscientiously trying to meet increasing requirements, and that are having a hard struggle for existence?

The Presidential Election. It would not be proper to consider this subject from the ordinary political standpoint but there are certain psychologic factors of interest. The closeness of the vote in many states and the unexpected political changes in others indicates a growing tendency to independent thought, regardless of political affiliation and to change of mind to meet changed conditions. This is a wholesome tendency, however one regards the wisdom of the majority. At the risk of venturing too close to actual politics, it may even be said that a great many voters refused to blame the

president for changing his mind under altered conditions, or for making what they might have regarded as mistakes under circumstances that rendered judgment based on the past and fully providing for the future, exceedingly difficult. On the other hand, they demanded a detailed and circumstantial criticism from his opponent. In other words, the people assumed the judgment to decide as if they themselves were the government and this attitude, as well as the recognition of the unfairness of an electoral vote contrary to the popular vote may ultimately do away entirely with the electoral college which has never been more than a theory since the first few presidential elections. The fact that, in the present instance, the aggregate electoral vote will fairly represent the aggregate popular vote, perhaps will further such a demand as in itself unbiased by political results. The conspicuous differences in the majorities of various candidates on the same ticket, also shows that the old idea of party loyalty is losing ground. The vote for prohibition in certain states is also significant. Perhaps most interesting of all is the vote by women. There was comparatively little to justify either the aspiration or the fear that women would vote as a sex. Speaking broadly, the women's vote corresponded closely with the male vote, yet with sufficient local fluctuations to indicate personal independence of judgment. It cannot be said either that women have voted as a unit for an individual or a policy that the sex might be considered to favor, neither can it be said that they have simply been influenced by the male members of their families. In short, the suffrage must be regarded as an ultimate justice rather than a rapid method of purifying politics and accomplishing reforms or, on the other hand, as something to which the obvious expense in money and effort required to handle a double number of voters oppose practical objections not offset by any notable improvement of the exercise of the franchise. The decision, in states not already granting the suffrage to women, or assumed by the country as a whole, will probably depend to some degree upon how the women who are already voters deal with the vast amount of legislation establishing privileges for the sex on the old theory that they were not competent to discharge the entire duty of citizens and must therefore be specially protected and provided for.

Roosters, Dogs, Gas Stoves Without Chimneys and Milk Standards are engaging the attention of the Buffalo Dept. of Health. Ordinances are sought which will effectually control these matters, in accordance with general principles of the code. Much popular objection has been manifested to too stringent legislation. The keeping of chickens should be en-

couraged for its influence on food prices, provided a fair amount of space is available. Roosters can be quieted by section of the vocal cords—a simple and probably painless operation in birds—and by various covers, throat rings, etc. The average dog is quieter, more trustworthy and less likely to inflict bites than the average human being. Being subject to license, his personal merits and demerits are subject to formal proof. We have little sympathy for nervous cranks who want everyone and everything to keep still while they sleep and, on the other hand, we are all annoyed by unnecessary noises depending on carelessness and lack of consideration. We don't like to think of even a few people killed by loose gas connections on stoves in rooming houses and, on the other hand we don't want to suffer from cold on account of temporary lack of gas pressure or because the furnace man has made a slip, when we have a perfectly good gas heater that can be attached anywhere but for which a chimney cannot be built in every room. Somehow, it ought to be possible to frame an ordinance that will sufficiently protect the average life and health and still not be so inelastic that it must be enforced without discretion. We must not forget that when we speak of the U. S. as the Land of Freedom, it is seriously near to being a joke.

The Emmanuel Movement received considerable medical endorsement in the east at its inception a few years ago but, in San Francisco, Rev. Parker Boyd, head of the Emmanuel Health Institute has recently been arrested for diagnosing without a medical license.

Centenarian. Mrs. Mary Simpson Clingman of Cedarville, Ill., died Oct. 23, aged 106 years and 10 months. Four children survive her, aged from 65 to 74.

Binders for Journals. We can secure binders for this and other journals of about the same size for about 75 cents apiece, or less if ordered in large quantities. If any of our readers are interested, they are requested to remit and to state size of binder if wanted for other journals.

Poliomyelitis. A case was reported in Buffalo, Nov. 22—Edward Huntzinger, an infant, 133 Theodore Street.

Morphine and Heroin Seized. The Federal Inspector confiscated a quantity of these drugs from two negroes at 152 Clinton Street, Buffalo, Nov. 22. Several arrests were made.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The American College of Surgeons held its annual meeting in Philadelphia, Oct. 27. Dr. George W. Crile of Cleveland was elected president, succeeding Dr. J. M. T. Finney who has served since the beginning of the organization. Drs. Rudolph Matas and Robert G. Le Conte were elected vice-presidents. 200 fellows have been admitted to the College during the past year, out of 2500 applicants, the total membership being now 3700. One of the prime requirements for fellowship is the submittance of case histories and only about 40% of those complying with this requirement were admitted because, in the opinion of the State and Central Credentials Committees, the histories were incomplete, the diagnosis not established or the surgical judgment poor. Such rejection is not necessarily permanent. One of the main functions of the College is the control of hospital management, both to secure proper surgery for the people and suitable education of surgeons during their internship. There is mentioned with approval, a hospital which maintains the open staff policy but in which any operator not satisfying the superintendent as to his competency, is requested not to bring further patients to the hospital. The matter of fee-splitting is summed up in the words: "Anyone who divides fees is a liar and a thief." Seven charges of fee-splitting were investigated, one fellow expelled and two suspended for further evidence. Standards of moral and scientific excellence are to be established by a committee, to be elected by states, on the basis of 2 to each million of population. (Note: It seems to us that the surprising success of this organization in the brief period of its existence, is the best answer to the objections offered. Yet the authoritative way in which what is really a private institution plans its campaign and the drastic measures taken to remedy evils, are not without certain dangers. For example, the literal division of a fee, as openly and honestly practiced with the lump sum voted by congress for the professional attendance on the late President McKinley, does not warrant us in considering the honorable and eminent gentlemen involved, to be "thieves and liars." The provisions of

the College in this regard, have been condemned, not from any sympathy with ordinary, sneaking fee-splitting but on the ground that they discriminate in various practical ways in favor of the surgeon and the consultant).

Elmira Academy of Medicine. The regular meeting was held Nov. 15. Dr. Chas. G. Wagner, Supt. of the Binghamton State Hospital gave a paper on Mental Hygiene and Dr. Karl Connell showed lantern slides illustrating experience "With the Troops at the Mexican Border, and Sanitary Service in France and the Central Empires." A collation was served. The President is Dr. La Rue Colegrove; the Secretary Dr. E. T. Bush.

Rochester Academy of Medicine. A regular meeting of Section III was held Nov. 8. Drs. Norris G. Orchard, Franklin W. Bock and Charles R. Witherspoon, spoke, respectively, on Mental Hygiene, "Guarding the Portals of Entry" and Diet, of the First Two Years of Childhood. Dr. Lucius L. Button, Chairman; Dr. W. Douglas Ward, Secretary.

The Monroe County and Western N. Y. Homeopathic Medical Societies held a joint meeting Nov. 14; under the presidency of Dr. R. Montfort Schley of the latter and Dr. Wm. Perrin of the former, Dr. Lloyd H. Clark, secretary. The scientific program was as follows:

Pathology of Gall-Bladder and Bile-Ducts, Dr. Warren C. Daly, discussion opened by Dr. H. R. Brown, Pathologist Rochester Homeopathic Hospital; Diagnosis, Dr. George R. Critchlow, discussion opened by Dr. Davis B. Jewett; Roentgen Rays in Diagnosis, Dr. Llewellyn J. Sanders, discussion opened by Dr. Edgar B. Cook; Surgery of Gall-Bladder and Bile-Ducts, Dr. Frank T. Bascom, discussion opened by Dr. Hiland G. Shepard; Homeopathic Therapeutics, Dr. Volney A. Hoard, discussion opened by Dr. Charles R. Sumner.

Dinner was served to the members and ladies and in the evening, Dr. Edmund Boddy gave a talk on Medical Relief Work in the Balkans.

U. of B. District Branch Alumni Meetings. Chautauqua District Alumni Association, Thursday, Nov. 16, 1916. Holley House, Bradford, Pa. Central and Northern New York Alumni Association, Thursday, Apr. 5, 1917, Syracuse, N. Y. Third Annual Dinner, Federated Alumni, Thursday, Feb. 22, 1917, Buffalo, N. Y. Interstate Alumni Association, Monday, Mar. 26, 1917, Binghamton, N. Y. Metropolitan Alumni Association, Tuesday, Mar. 27, 1917, New York City. Rochester

District Alumni Association, Thursday, Apr. 19, 1917, Rochester, N. Y.

At the dinner of the **Chautauqua District Assn.**, held at the Holley Hotel, Bradford, Pa., Nov. 16, the President, Dr. J. E. K. Morris of Olean, acted as toastmaster. Mayor Herman H. North gave an address of welcome and speeches were made by Drs. Richard F. Morgan, Pres. of the Federated Alumni; T. H. McKee, Dean of the Medical Dept.; L. Kauffman, ex-Pres. of the Medical Alumni; Willis G. Gregory, Dean of the Pharmacy Dept.; D. H. Squire, Dean of the Dental Dept.; W. D. Greene, Pres. of the Medical Alumni. The following officers were elected for the Chautauqua Branch, for the next year: Pres., Dr. H. J. Nichols, Bradford; Vice-Pres., John C. Knight, Salamanca; John J. Mahoney, Jamestown, and E. L. Todd, Dunkirk; Sec., J. D. Earty, Olean; Treas., Geo. W. Ross, Wellsville. The fourth annual meeting will be held at Salamanca, Nov., 1917.

Buffalo Academy of Medicine, Section of Pathology, Oct. 25.

Rabies as a Public Health Problem, Miss Ethel A. Jacobs, Prof. of Bacteriology, University of Buffalo, discussion by Drs. Carpenter, Thibaudeau and Dr. Ell. Volgenau, Veterinary City Health Department; Some Aspects of Hodgkins Disease, J. A. P. Millet, M. D., Internist at Hospital, State Institute for the Study of Malignant Disease, Lantern Slide Demonstration, discussion by Drs. Harvey R. Gaylord, Herbert U. Williams. Wm. F. Jacobs, M. D., Chairman; Wm. G. Bissell, Secretary.

Section of Surgery, Nov. 1. Clinical Data with Nephrolithiasis, Lantern Slide Demonstration, Dr. Wm. F. Braash, Chief of Urological Department, The Mayo Clinic, Rochester, Minn., discussion opened by Dr. J. A. Gardner. F. M. O'Gorman, M. D., Chairman; J. B. Cross, M. D., Secretary.

Section of Medicine, Nov. 8. Some Subjects of Psychoanalysis, Smith Ely Jelliffe, M. D., Ph. D., Adjunct Professor of Diseases of the Mind and Nervous System in N. Y. Post Graduate Medical School and Hospital. Edward A. Sharp, M. D., Chairman; Harry Mead, M. D., Secretary.

Section of Obstetrics and Gynecology, Nov. 15. The Interrelationship of the Pituitary and Female Sex Glands and its Clinical Application, James E. King, M. D., the paper was illustrated by lantern slides. Irving W. Potter, M. D., Chairman; Herman K. DeGroat, M. D., Secretary.

Section of Pathology, Nov. 22. "Some of the Practical Problems in Bacteriology and Pathology Encountered in the War Zone," Lantern Slide Demonstration, John J. Mac-

kenzie, Prof. of Path. and Bact., Univ. of Toronto. Dr. Wm. F. Jacobs, Chairman; Dr. Wm. G. Bissell, Secretary.

OUR CONTEMPORARIES

"A Specious But Vicious Principle."

"Dr. J. Bayard Clark, of New York, published an interesting article in the July issue of the New York State Journal of Medicine on the self-supporting hospital. He showed just how such an institution could be made to meet all its expenses and also pay salaries to its medical and surgical staffs, whose offices would be in the building.

"This is surely the last word among all the schemes to prevent the general practitioner from being self-supporting. We must have self-supporting hospitals, and self-supporting staffs, but it remains for someone to show how the general practitioner may become self-supporting. Were such hospitals as Dr. Clark proposes to become numerous no practitioner on the outside would stand much chance of survival.

"Sometimes the psychology of such schemes seems to stand revealed as a desire to draw coteries together which shall be exempt from competition. Do not such schemes mean professional decadence, with the weak unconsciously storing honey for themselves while they poison the supplies of the rank and file?"—Medical Times, Nev. Is the Times correct in its assumption of the cloven hoof?

The Texas Medical Journal (The Red Back) will celebrate its 25th anniversary by changing its name to Medical Insurance and Health Conservation and will enter the national field of journalism. The proprietor and editor is Mrs. F. E. Daniels.

The Medico-Legal Journal, Sept., holds that WHITE SLAVERY is about as prevalent as ever and no more so; that the street walker or professional prostitute who supports her lover and protector, is not a white slave, and that the male pimp is on about the same level as the married man who allows his wife to support him by taking in washing; that the published stories of white slavery are mainly furnished by prostitutes who need no sympathy; that the real white slave rarely exists and is not turned loose on the streets but is kept half drunk and drugged in a house; that there is hardly any doubt but that some girls are born to be prostitutes; that the

sex instinct is stronger in children than is realized and that parental control is necessary, aided by a curfew law.

Dr. E. P. Anshutz, Editor of the Homoeopathic Recorder in quoting from this journal calls us brother and speaks of the publication as "that fine old Journal." We reciprocate the fraternal greeting. There is more real ethics in a cordiality of this kind than in the whole of the old code that emphasized the differences between methods of practice and that ignored the essentials of professional life and aspirations. Be it remembered, too, that the Recorder is homoeopathic in belief as well as in name and that the respective editorial brethren disagree as to medical theory and practice about as thoroughly as could be imagined. Friendly disagreement coupled with mutual respect is a strong factor in ultimate agreement as to fact.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. A. Crandall Way, Buffalo 1895, a prominent practitioner of Perry, N. Y., died of tuberculosis complicating diabetes of some years' standing, at Saranac Lake, Nov. 6. He was born at Binghamton, Aug. 28, 1870. He began his medical course at the University of Michigan but completed it at Buffalo and began practice in that city, later moving to Perry Center and more recently to Perry, as more convenient for his radius of practice. The funeral was held at the residence of his parents, Mr. and Mrs. D. A. Way who, with his wife, Mrs. Florence Morse Way and an infant daughter, Carroll, survive him. Interment was in the Binghamton cemetery, the services being in charge of the Elks' Lodge of that city. Dr. Way was also a Mason. He was not only active in practice but a regular attendant at state and national medical meetings. His pancreatic lesion interfered in no way with his duties and sunny disposition and his prudence prevented it from affecting his general health seriously till last winter when, following an attack of influenza, signs of pulmonary tuberculosis developed. After a southern trip, he went to Saranac Lake and made a valiant but vain fight to recover his health. He will be missed by a large circle of devoted patients and friends.

Dr. Milton Bennett Titus, N. Y. Homoeopathic 1881, died

in St. Luke's Hospital, Chicago, Oct. 14, from the effects of poison believed to have been self-administered. He was 58 years old. He was at one time President of the Allegany Co. Medical Society.

Dr. Emmelin Pickette Philbrick (not listed in State Directory nor Polk), died Nov. 9, at the home of George T. Luce of Warsaw, aged 78. She had practiced medicine in Warsaw and Pike for several years.

Dr. Christian A. Weinbach, Medical College of Mobile, Alabama 1894, Buffalo 1895, died at his home in Buffalo, Nov. 9, aged 42.

Dr. Elbert Augustus Ainsworth, Syracuse 1874, died at his home in West Union, Ia., Aug. 31, aged 67. He was City Health Officer, a member of the board of education and surgeon to the C. M. & St. P. R. R.

Thomas Lauder Brunton, M. D., LL.D., the distinguished pharmacologist, died in London, Sept. 16, aged 72.

Dr. Adam Miller, Geneva 1844, died at his home in Jordanville, N. Y., Sept. 28, aged 97. He was surgeon of volunteers during the Civil War and formerly superintendent of schools for the town of Warren.

Dr. Tobias John Green, Geneva 1845, died at his home in Mexico, N. Y., Oct. 4, aged 98. The death of these college mates, so nearly of an age, within a week reminds us that the history of this medical college ought to be written before its alumni have all passed away.

Dr. William Jacob Coppernoll, Michigan 1887, a laryngologist of Newark, N. Y., died at Laconia, N. Y., Oct. 14.

Dr. Byron L. Craft, Buffalo 1893, of Newark, N. J., died in East Elmira, N. Y., Sept. 17, aged 48. Death occurred suddenly and was ascribed to heart disease. He formerly resided in Baltimore.

Dr. E. J. Whittleton, Cleveland Homoeopathic 1884, died suddenly at his home in Webster, N. Y., Nov. 20. He was born in Walworth, June 1, 1859. He practiced in Sodus, moving to Webster about 20 years ago.

Dr. E. J. Wolff (not listed in State Directory), died Nov.

20 in E. Aurora, aged 25. He had recently come from Chicago.

Dr. Thomas A. O'Hare, Pennsylvania 1875, died at his home in Rochester, Nov. 20, in his 68th year. He was born and educated in Rochester and had practiced there all his active life. He had been president of the local Academy of Medicine, Pathological Society, and Monroe Co. Medical Society and of the Medical Assn. of the State of N. Y. He was, at the time of his death, President of the staff of St. Mary's Hospital and of the Board of Managers of the Rochester State Hospital and Physician to St. Patrick's Girls' Orphan Asylum. As thus indicated, he was prominently interested in philanthropy and in medical organizations. As a physician he was universally recognized as conscientious and skillful.

Dr. Uri Colvin Lynde, Buffalo 1859, died at his home in Buffalo, Nov. 21, aged 83. Death is ascribed to the remote effects of a fracture of the skull sustained in 1910 by falling from a trolley. He was born in Concord, Erie Co., N. Y., and was graduated from the Buffalo Central High School. He served as assistant surgeon to the 116th N. Y. Regiment of Volunteers for 18 months, 1862-3, when he was given sick leave. After the War, he took a post-graduate course in surgery at Jefferson Medical College, Philadelphia. From that time on, he was a prominent practitioner of Buffalo and was, at the time of his death, one of its oldest members. He was a classmate of the late Lt. Col. William Warren Potter, editor of this journal. Only two members of this class are now alive.

PERSONAL

Dr. R. P. Bush of Horseheads has been re-elected to the Assembly from Chemung County. Dr. Bush has always been foremost in promoting laws to benefit the health of the people.

Dr. A. W. Booth of Elmira has been elected president of the State Board of Medical Examiners.

Dr. Homer J. Trotter (Buffalo 1915) has completed his interne service in N. Y. City and has opened an office at 473 Virginia Street, Buffalo. His practice will be limited to diseases of the ear, nose and throat.

Dr. R. M. Sterrett, many years associated with the advertising of Antiphlogistine, sends greeting to his many friends, announcing his resignation as Advertising Manager of the Denver Chemical Mfg. Co., effective January 1st.

Dr. Julius Richter of Buffalo announces the removal of his offices to 2556 Main Street. Hours 9 and 1-2.

Drs. George W. Goler, Wesley T. Mulligan and John Aikman of Rochester attended the meeting of the New England Paediatric Society in Boston, Nov. 4.

Dr. and Mrs. Chas. W. Bethune of the Mathewson Apartments, 294 S. Elmwood Avenue, Buffalo, made a two-weeks trip in November to Washington, Baltimore, Boston, Philadelphia and New York, Dr. Bethune attending various clinics in these cities.

Dr. Jesse N. Roe of Buffalo announces the removal of his office to 481 Franklin Street, his practice being limited to dermatology and contagious diseases.

Dr. W. Gilman Thompson, Prof. of Medicine at Cornell University Medical College in N. Y. City, since the organization in 1898, has resigned, being succeeded by Dr. Lewis Atterbury Connor.

Dr. L. O. Thoma has moved from Buffalo to Forks, N. Y.

Dr. A. F. Luhr of Buffalo has moved his office to 519 Franklin Street.

Dr. S. Y. Howell of Buffalo spent the last two weeks of October hunting in the Adirondacks.

Dr. Walter L. Savage of Buffalo has moved to 1420 Amherst Street.

Dr. Francis E. Fronczak of Buffalo has been elected a director of the Am. Assn. for the Study and Prevention of Infant Mortality, which met in Milwaukee in October.

Dr. W. B. Whitcombe of Batavia having waived reappointment as town Health Officer, Dr. Henry M. Spofford has been appointed to this position.

The Board of Trustees of the Buffalo Orphan Asylum have elected Dr. Milton Bork to act as physician to the asylum.

Dr. Elmer E. Williams, University of N. Y. 1889, who has been in practice in N. Y. City, has recently moved to Syracuse, 814 Lancaster Avenue.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

The Roentgen Diagnosis of Diseases of the Gastro-Intestinal Tract.*

LESTER LEVYN, M. D.,

Roentgenologist Erie County Hospital, Buffalo.

Physician German Hospital Dispensary.

In introducing this paper I am taking the liberty of quoting the late Dr. Chas. Lester Leonard, "The importance of Roentgenology in the diagnosis of Gastro-Intestinal lesions has recently been emphasized by the prominence given to this subject in the programs of National Medical and Surgical Societies. Special reports have been made and entire sessions given over to their discussion. The progress in the past five years has influenced medical and surgical opinion until a Roentgen examination is considered a sine qua non before operation. The kindred sciences of anatomy, physiology, and pathology show the effect of their study in the living man by this method. Other methods of physical and chemical diagnosis are not displaced, but are amplified by the knowledge it affords. In fact the Roentgen method yields its best results when the patient referred for examination is accompanied by all the data which the older methods can secure."

Since Roentgen technique has improved so extensively during the past five years, this comparatively recent means of diagnosis has found a permanent place in modern medicine. It is of inestimable value as an aid in solving many difficult problems in the field of Gastro Enterology as in other branches of medicine. It remained for the X-ray to give us

*Read before Buffalo Academy of Medicine, April 12, 1916.

a correct interpretation of the size, shape, position, motility and character of peristalsis of the stomach and intestines in the living. After death or during the progress of an operation under general anaesthesia the stomach is entirely different than while performing its usual functions during life.

Several types of normal stomachs have been described by various investigators. Among these are the steer horn form, fish hook form and text book stomach. On the continent the two forms most generally recognized are those described by Rieder and Holznecht, known as the Rieder form and Holznecht form stomachs. The normal stomach in a stout person differs considerably from that of a thin emaciated subject, it being higher and occupying a more transverse position, due to the support of the abdominal fat, while in the very thin the stomach may be situated in the pelvis.

I shall not consume more time discussing the normal stomach, but will consider certain abnormal conditions with which we are daily confronted.

GASTRIC CANCER

The Roentgen examination of the stomach has proved a decided adjunct in the diagnosis of early Gastric Cancer. Like all other methods, however, we must not consider it infallible. In early cancer before marked obstruction has occurred, we are frequently able to determine partial obstruction earlier than by any other methods. In some cases of beginning cancer of the stomach the Roentgen signs simulate those of ulcer, and one is unable to determine whether the condition is malignant at this stage. Nevertheless if differentiation is not possible we are able to determine when surgical interference should supplant medical treatment. When the Roentgen picture of the stomach shows us the presence of permanent defects in its shape, due to induration or adhesions, six hour rest, and abnormal peristalsis, it is then that surgery is indicated. At this early period it is possible often to produce a cure. W. J. Mayo, in a report of operations for Gastric Cancer, states that radical operation in this early stage has materially diminished the mortality. In the early stages peristalsis is very active, but the contents are expelled very slowly. A bulging just within the pylorus on the greater curvature occurs as the result of the contractions propelling the food towards the pylorus which is not patent, and the pre-pyloric portion stretches further to the right than the pylorus, causing the pylorus itself to assume a position practically on top of the stomach and pointing towards the spleen. Early this bulging is slight and increases as the involvement progresses. Another cardinal symptom is the so-called filling defect. This is caused by the growth extending into the lumen of the stomach and causing an irregularity in its contour. In

the medullary carcinoma the filling defects are larger and multiple, while in the scirrhus type they are smaller, the stomach assuming a funnel shape. Hour glass contractions may then result from the attack of the tumor mass. Filling defects caused by organic changes must be differentiated from those caused by other means, such as growths of neighboring organs or a colon distended by gas or by spasmodic contraction. Defects caused by a gas filled splenic flexure indenting the greater curvature are frequently met with. Fluoroscopically, palpation of the stomach away from the colon will clear up doubt concerning the cause of irregularity. Deformity caused by spasmodic contraction will disappear under atropine medication.

Abnormal peristalsis is commonly seen in Gastric Cancer. As the acidity of the stomach diminishes peristalsis in proportion becomes less marked. A peristaltic wave progresses as far as the mass, skips it and resumes its activity. Reverse peristalsis is a sign noted by some observers. The motility is diminished because of the involvement of adjacent organs, producing fixation of the stomach. Residue is dependant upon the extent of the obstruction. If the pylorus is gaping there may be none at all.

GASTRIC AND DUODENAL ULCER.

The Rontgen diagnosis of ulcer is of a comparatively recent date. In the early use of the opaque meal it was thought that ulcer could be diagnosed by the bismuth adhering to the lesion. It is now known that the hyper-motility produced by the irritated surface causes marked contractions which, if anything, propel the bismuth from the ulcer instead of causing it to adhere.

Gastric Ulcer occurs most frequently in the pylorus and pyloric region. Simple acute ulcers are as a rule cured by medication, and those which are not amenable to medication and become chronic are more frequently seen by the Roentgenologist. In chronic ulcer the inflammatory tissue after a time produces changes which in turn produce deformity. It is necessary to determine if any deformity or change in contour is due to an actual lesion or to a functional disturbance. Serial Radiography and Fluoroscopy will determine this. Any defect not altered by palpation or anti-spasmodics and remaining permanent after extended observation, is a direct sign of an organic lesion.

In penetrating ulcer the bismuth fleck is seen in a so-called pocket or diverticulum, the bismuth often remaining present for a great length of time. This sign was first called attention to by Haudek, and is known as the Haudek niche.

The indrawing of the circulature of the stomach known as

the incisura is a frequently seen Rontgen sign. This is as a rule produced by an infiltration or irritation caused by the ulcer. Hour glass deformity is also of great diagnostic value.

Retention of a considerable portion of the bismuth meal for more than six hours in gastric ulcer is usually due to pylorospasm, or if in the area of the pylorus the residue is a result of the obstruction at that site from scar tissue.

DUODENAL ULCER.

Duodenal ulcer is diagnosed with greater ease and certainty than gastric ulcer. George states that 95% of all duodenal ulcers occur in the first portion of the duodenum, and that if normal the first portion is always seen on the plate with its characteristic shape and smooth outline, that any constant deformity of the cap is indicative of a pathological condition which may be ulcer, adhesions due to cholecystitis, or accidental variation, such as pressure from adjacent organs. Carman, at the Mayo clinic, has divided the Roentgen signs of duodenal ulcer into two groups consisting of major and minor signs.

The major signs are:

1st. Gastric hyper-peristalsis.

2nd. A residue in the stomach (sometimes in the duodenum after six hours if there be obstruction from scar tissue contraction).

3rd. A diverticulum of perforating ulcer.

The minor signs are

1st. Gastric hyper-motility with early free opening of the pylorus and speedy clearing of the stomach.

2nd. Gastric hypertonus.

3rd. Irregularities in the outline of the cap or bulb of the duodenum.

4th. Lagging of bismuth in the duodenum.

5th. Pressure tender point over the duodenum.

6th. Spasm of the stomach, such as hour glass or slowly traveling incisura.

Case and Cole consider permanent defects in the duodenal cap one of the chief means of diagnosing duodenal ulcer and its complication. I have found in my own experience that when a series of plates reveals a constant permanent defect or deformity in the cap, a pathological condition exists in the duodenum itself or its adnexa.

The diagnosis of obstruction at the pylorus is made invariably by the X-ray. The usual causes are ulcer and malignancy occurring within the stomach and tumor masses from without causing pressure. Chronic appendicitis with adhesions involving the cecum, transverse colon and omentum, the latter drawn towards the appendix and making traction on the

greater curvature interfere with the motility. Adhesions of the gall bladder and pylorus in cholelithiasis and cholecystitis may produce a narrowing of the pylorus and subsequent obstruction. Syphilis is a less common factor in the production of pyloric obstruction, but must be considered.

GASTROPSIS.

Gastropsis is a condition very frequently encountered Roentgenologically. Under the screen the bismuth is seen to fall through the stomach very rapidly. The oesophagus with the fornix are held by their ligaments above, and the pylorus by its ligaments below, so that the bismuth distends the lower portion of the stomach, which subsequently increases in its vertical length. Above the walls of the stomach are in contact, the fornix containing gas. Peristalsis in the erect position is nearly absent, but is more pronounced in recumbency. If atony of the wall is also present, dilatation will occur unless compensatory muscular hypertrophy is present. In gastropsis associated with atony the stomach may retain its contents for eight or more hours.

CHOLELITHIASIS AND CHOLECYSTITIS.

The Rontgen diagnosis of gall stones is possible in a large number of cases. Many observers report their ability to detect the presence of stones in a large percentage of cases. A. W. George says that in 85-95% of cases he is able to demonstrate stones. Calculi composed of pure cholestrin cannot be shown, but those containing calcium even in small amounts are visible. It should be remembered that negative Rontgen findings do not rule out the presence of stones. Cholecystitis with adhesions to the pylorus is frequently diagnosed.

Often conditions in and about the appendix are discovered. As a rule the caecum fills in 6 hours, and the appendix soon after. If the appendix retains bismuth for 24 to 48 hours after the meal, according to Case, it is a diseased appendix in proportion to its defective drainage.

In the examination of the large bowel the Rontgen method is of great value. It is always advisable to employ the bismuth enema whenever any organic condition of the colon is suspected. From 3-5 ounces of the chemically pure barium sulphate are used in a suitable menstrum, and the solution permitted to enter by gravity.

The accepted Roentgen description of the bowel is as follows: "The caecum is that portion of the colon into which the ileum empties through the ileo cecal valve. It is almost surrounded by the peritoneum and is therefore freely movable. It may be found in the pelvis or displaced upwards.

The ascending colon extends upwards and backwards into

the iliac fossa, and reaches nearly to the liver, where it forms a more or less acute angle. The hepatic flexure, together with the proximal portion of the transverse colon, may frequently be ptosed, drawn forwards and downwards. This is a normal condition for many people. The transverse colon extends from the hepatic flexure to the splenic flexure. It varies greatly in position. Particularly in thin individuals it may hang as a loop reaching into the pelvis. In this position the distal portion may appear to overlies the descending colon.

The Roentgenoscope or stereoscopic plates are useful for differentiation in such conditions. The close relation between the transverse colon and the greater curvature of the stomach should be borne in mind.

The splenic flexure is firmly held to the diaphragm by a strong ileo colic ligament. This flexure normally occupies a position several inches higher than the hepatic flexure. The descending colon extends to the brim of the pelvis. This portion of the colon is practically retroperitoneal and is fixed. The sigmoid has a great normal variation in size and position and is attached by a mesentery which varies in length. The rectum extends from the external sphincter to the sigmoid. It is the most distensible portion of the colon, and consequently has a great normal variation in size and shape.

Following administration of the bismuth meal the various sections of the colon are reached as follows. The cecum between 4 and 6 hours, the hepatic flexure in 7 hours, the splenic flexure in 9 hours, and in 11 hours the column appears at the brim of the pelvis. It is difficult to discern peristalsis in the large bowel, the slow rhythmic contractions not being visible. Holzkecht believes that the colon is not very active, except for intermittent contractions which propel the contents with sudden force. With the patient in the upright position sometimes the low position of the hepatic flexure causes constipation through kinking.

The cause of constipation may often be found by Roentgen examination. Hertz classifies constipation in two divisions, i. e.:

1st. Where there is delay in the passage through the colon.

2nd. Where the feces reach the sigmoid flexure in the normal time but are delayed in the rectum. He terms this inefficient defecation.

In cases of the first type, delay through the colon, the time consumed by the bismuth in approaching various parts of the colon may be noted. In the second type, that due to inefficient defecation, studies made before and after show shadows in the rectum, whereas if the rectum is clear after defecation, the constipation is due to the delay in the colon.

New growths are diagnosed by obstruction to the advance

of the bismuth column. The clysma is of importance in these examinations, and in those cases where tumor formation is present the flow of the bismuth is interfered with. Dilatation of the colon on the proximal side of the tumor is also a sign. Case suggests that "At the 12th, the 28th, and possibly the 52nd and 76th hour the colon should be studied with special reference to the hindrance above the point already under suspicion."

PTOSIS.

Ptoxis of any portion or of the entire colon may occur, and is easily recognized. The transverse colon may fall completely into the pelvis. Anomalies of the sigmoid are discernable, such as kinks, loops and aberrant sigmoid.

444 Franklin Street.

Proposed Abolition of Heroin. The Committee on Drug Addiction of the National Committee on Prisons, has developed the consensus of opinion that heroin is more used by juvenile criminals than other preparations of morphine and, since heroin is not absolutely indispensable but can be replaced with ordinary morphine salts or even Galenicals of opium, federal legislation is proposed to prohibit its importation, manufacture and sale. Perfectly simple and logical. If people eat too much meat, and beef is found—as is highly probable—to be the most used of any, prohibit the raising of cattle. To check automobile accidents, count the cars, and close the factory that turns out the plurality—though it is claimed that it is now a majority. Instead of prohibition or restraint of alcoholic indulgence as such, pass a law that the most popular beverage shall be no longer made, etc., etc., etc.

Blood Test. H. Couturier, Med. Press, July 19, advocates the following: Haematoxylin in water, 5 parts in 10,000; sodium hydroxid, 40 5; hydrogen peroxid, 12 volumes. Add to 5 c.c. of the sodium hydroxid solution, shake and add a drops of haematoxylin solution. Make the test in duplicate, using water or preferably the same excretion that is to be examined but known to be free from blood. A dark blue tinge develops in both tubes. Add 10 drops of hydrogen peroxid and compare. If blood is present, this color changes to violet red in 3 or 4 seconds, to light brown in 20 seconds, and to pale yellow in 40 seconds, the same changes occurring in the control, but only after several minutes. The haematoxylin solution must be freshly made. (Interesting but apparently not so good as other tests.—Ed.)

Highways.*

A. L. BENEDICT, A. M., M. D., Buffalo.

Presidential Address, October, 1916, Medical Association of
Central New York.

Precedent is rather against the presentation of personal clinical experience in an address of this kind. The Association is too successfully following its logical purposes, either to need admonition or advice or to desire praise. It is not so much modesty that prevents the solution of some great economic or ethical problem in your presence as the conviction that this would be too much like being called before a class to present a demonstration already worked out by all. Our professional problems need execution rather than solution. It has, therefore, seemed permissible to take quite literally the accepted dictum that our profession should exercise an influence in matters of general civic interest and to call attention to the subject of Highways. This is not so remote from our immediate interests as might seem. Physicians always have depended upon highways to a greater degree than members of most other professions and businesses except those directly concerned with transportation. The condition of highways not only means much to our comfort and convenience but to our efficiency. In the use of automobiles, our profession ranks second only to that of presidents, as of the country, railroads, banks and other corporations. It stands second only because such a presidency means a relatively high degree of wealth and, in actual, necessary use of automobiles, our profession stands first. Broadly considered, accidents and fatalities on the highways are as much in our domain of therapeutic and prophylactic interest as any disease. Such accidents account for 25 deaths per hundred thousand population, the 25 being divided approximately as follows: 15 caused by railroads, 4 by street cars, 5 by automobiles, 1 by other vehicles. Most of the 15 are not directly concerned with highways in the limited sense although some are, by reason of improperly planned intersections of railways and ordinary streets and roads. But at least 10 deaths per hundred thousand population per annum, or about 1 to

*In assuming editorial charge of this Journal I felt that it would be unwise to publish my own articles of the nature usually classified as "original" in it, but that any such should be submitted to the decision of editors of other journals. In the present instance, there is an obvious conflict between this policy and the duty of publishing the program of the Central N. Y. Medical Association. The decision to publish, has been made after due consultation, taking into consideration also the fact that the subject is not one of scientific or clinical nature but one which might properly have been selected for editorial discussion.

every 150 deaths from all causes, comes strictly to the charge of highways. Among our own profession, it appears that about 2% of all deaths are due to automobiles and that this proportion is more strictly vocational than in the case of the population generally. (500 deaths in J. A. M. A. gave 10 due to automobiles, besides 1 due to shot from pedestrian, many deaths not being specified as to cause).

The dangers of and limits to the practical use of automobiles are no longer due, in great measure to intrinsic imperfections of the automobile itself, nor to lack of skill and caution in its management, but mainly to inadequacy of highways. Any one of moderate physical and mental capability can drive an automobile. Even as a luxury and convenience, neither the initial expense nor the upkeep prevents its use by those of a fair degree of prosperity. It is an economic possibility for anyone who can put it to practical use for transporting passengers and merchandise, either in his regular business or as an auxiliary means of employment. The present obstacle to its more general use is mainly the lack of sufficiently spacious highways to prevent dangerous congestion and of highways kept in a passable state at all times. Even the dangers attending its use require, not so much individual caution, legislation and judicial and police enforcement of regulations as adequate streets and roads.

In quite a liberal sense, the condition is one of 18th century supply of highways confronted with 20th century demands. No fairly well settled part of the country or city dating from the latter part of the 18th century has materially added to its streets and roads. No rural or urban community or later settlement has materially improved upon the highway provision of the former, except by showing greater respect to points of compass. In relative number, average width and expense of construction and upkeep, of highways, it is only very recently that any great change has been made from 18th century standards. Indeed, except for the increase of population and not in proportion to that, vehicular traffic was in a state of stagnation from the introduction of the steam railroad at about the beginning of the second third of the nineteenth century to the introduction of the automobile at just about the beginning of the 20th century. The introduction of the horse car at about the middle of the nineteenth century similarly discouraged urban vehicular traffic and the introduction of the electric trolley about 1890 apparently supplemented intra-urban transit for speed and inter-urban and suburban transit for frequency and fineness of network so as to comply fully with the growing demands for transportation of passengers and freight.

July, 1916, there are about 2½ million automobiles in com-

mission, 1 to every 40 of population. By the end of the year, the number will be 3 million and the ratio 3%. N. Y. State has about 10% of both the automobiles and the population of the U. S. In Iowa and certain sections of other states the ratio is 1:15 and the unchecked sales indicate that this ratio or even a 1:10 ratio may be reached in the near future. By the end of the present decade, we may expect a demand on highways equivalent to what would have gradually developed if rail transportation had never been invented. The great bulk of this demand will have developed in ten years instead of 80. This statement apparently ignores the fact that rail transportation, in some form does and undoubtedly will continue to care for the vast majority of long distance freight and passengers and for a large minority, at least, of short distance passenger traffic, especially in inclement seasons. But, on the other hand, the history of our country in the first half of the nineteenth century and contemporary conditions in Europe indicate that water routes, natural and artificial, would unquestionably have been developed as a partial substitute for rail transportation and it must not be forgotten that while rail transportation successfully competes with the motor for long distance and large bulk, it also indirectly creates a demand for the latter for short distance and small bulk. Or, more broadly stated, the railroad has rendered possible a degree of movement of human beings and freight that could not have developed by vehicular and boat traffic.

The stagnation of the highways for some 80 years involves political as well as economic features. The nation has, practically, never exercised its explicit constitutional control over post roads nor its implicit powers over roads for military purposes. The states have failed to assume authority and responsibility regarding highways supplemental to the nation, as they inevitably would have done if the railroads had not usurped the functions of the people in providing routes of intercourse. Thus, street and road provision and maintenance have devolved almost entirely on local governments and have been neglected except in cities to a large degree, until very recently. Country roads are in fair condition for only a quarter of the days of a year and a village or city in its infancy is wet most of the time.

At this point, an amazing admission must be made. The number, distribution and width of rural highways, as laid out in the eighteenth century or in the nineteenth century but with no anticipation of 20th century developments, are, with comparatively minor exceptions, adequate to present needs and those of the near future. It is only the road way

itself that requires extensive improvement. The original area of most of our cities also remains adequate to the demands of the same area if it were still an entire city. Even as the business center of a much extended municipal area, the streets would be fairly adequate to present demands if the original plan of the city had been extended systematically to meet growth of population. The main defect in most cities is that they have grown by increments of pre-existing independent villages or of artificial real estate syndicates and that no or few direct through routes have been laid out in addition to the former country roads connecting them with each other and with the down-town district corresponding to the original city. These trunk streets have, of course, been preempted for street railways so that, under present conditions, dangerous congestion of traffic occurs and there is a constant loss due to the diversion of traffic by round-about routes from one part of the city to another. In Buffalo, for example, there is less than one exit per mile of boundary; only two exits not encumbered by street car tracks and one of these leading nowhere in particular; only four streets continuous from city line to city line and two of these merely diagonally for a comparatively short distance across a corner of the city. The original village of Buffalo constitutes the south-western corner of the present city and the Lake and River do away with traffic demands along its south-western front, yet in some way, we have perversely accomplished the apparently impossible result of compelling most extra-urban and a large part of interurban traffic which would gladly avoid the congested business center, to pass through it.

The fact should be clearly comprehended and promptly acted upon that the dangers of street congestion cannot be removed by traffic ordinances but only by an adequate provision of through streets and that, in the long run, such provision is more economic than the increasing expense of traffic police, the damage to property and person inevitable under existing conditions and the expense of time and mileage in following devious routes. The problem does not require in all or even many instances the enormous expense of razing buildings and creating parallel thoroughfares. A single block of rough pavement may interrupt an available thoroughfare. Others really exist but are scarcely known to residents, being composed of a series of short streets which require only rounding off of corners at jogs, occasionally a cut through back-yard property and some paving, to make a practically straight trunk route. Slight changes in street car routes, widening between curbs, compelling a few firms to park delivery wagons on their own ground floors or in basements and similar minor improvements will often solve the problem

much more perfectly and more cheaply than might be imagined.

The problem of rural roads is really of greater practical importance generally and to our own profession than that of city streets, since in the latter instance, trolley transit remains fairly adequate except as a matter of luxury and personal convenience. The problem is also limited mainly to the matter of road bed, including necessary engineering factors as of grades and bridges. Such new routes or connections of existing routes as are required do not involve the enormous expense for land involved in similar urban problems.

A great deal has been done toward rendering country roads available as practical routes of travel and transportation within the last few years but much remains to be done and it can be done successfully only by the assumption of power and responsibility by the nation and states, to insure systematic development. For example New York State has about 80,000 miles of rural highways, about 6000 being macadamized, bricked or cemented, and 1300 miles more being under construction. Without going into details, it can be shown that 2700 miles of improved highway would provide for roads encircling the state, for two through east and west highways—all that are practicable when we consider the obstacles afforded by the lake system—and for north and south highways at intervals of about 30 miles. Such a system would connect, fairly directly, almost all cities and towns of 10,000 population and over and, indeed, almost all centers of population except the smallest. Yet, with almost three times as much improved roads, we have only the following trunk highways: one east and west from Buffalo to Albany, almost constantly interrupted for repairs; one very devious east and west southern route, not completed at either end though a person with ample time can tap it by way of Avon and eventually reach the Hudson River and even New York City; a north and south route at the eastern, long edge of the state, decidedly sinuous north of Albany; a few north and south transepts, fairly straight and reaching somewhere near the northern and southern boundaries of the state. With these exceptions, it is impossible to start from any point in the state and proceed safely to any other point at a distance of 50 miles. Except from Albany and New York City, near the extreme eastern edge of the state, our logical share in the development of natural interstate highways has not been performed. About half of the N. Y. interstate highway S. W. from Buffalo is in bad condition. In the last two years military preparedness and the necessary part of highways have been much discussed. Contrast the actual with the possible provision of practical thoroughfares from this standpoint alone. At the beginning of

highway improvement, the necessity of scattering object lessons over the state, was obvious. At present, even from the standpoint of impartiality, the average resident of a given town might much better have a missing link filled in at a distance of 50 to 100 miles than have an additional stub of good country road in his immediate vicinity.

With individual exceptions, experience has proved that the macadam road does not meet existing demands. It is not only short-lived but subject to frequent attacks of calculus disease and greasy degeneration. Macadam did not anticipate the rubber tired vehicle and it is an injustice to his memory to apply his name to a mixture of Indian arrow heads and crude oil. The relatively permanent brick and cement road beds are in the end, cheaper than so-called macadam, the average cost being \$25,000, \$15,000 and \$10,000 per mile. The first two can be repaired without serious interruption of traffic. The macadam road, as contrasted not only with brick, cement and asphalt but even with sand, gravel, shale and clay imposes an indirect tax in tire damage fully equal to the license tax, from which, at present, is derived about 2 of the 10 million dollars expended for road improvement and maintenance in the State of N. Y.

One cannot make a road and use it too but it is certainly possible to make repairs in such sections and lateral halves as to avoid further interruptions of traffic. It is conceivable that a concrete bridge might be completed in the time required for the foundation of a 75 c.m. cannon and a road constructed without blocking any part of it for two seasons or delaying the construction of a natural unit of thoroughfare for five or six years. Improved roads as stated cost \$10,000-\$25,000 a mile: the additional expense of \$500 to make necessary detours passable by dumping natural gravel or shale on the low parts, would not appreciably increase the expense. Theoretically and perhaps practically, it would be possible for the state to buy a few miles of plank and construct safe, if not ideal temporary roadways alongside construction work, although the judgment of the Commissioner of Highways is against this suggestion. It may even be questioned whether, for a few years, it would not be better to limit new construction to the comparatively few miles of missing links necessary to complete the system of trunk highways already alluded to, and to spend whatever remains of its funds in grading the worst hills, and in dumping sand, gravel and shale—not cracked corniferous limestone—on the worst stretches of clay road. It is a matter of common sense not to close adjacent, parallel routes at the same time, yet this is repeatedly done both in the country and in the city. Three years ago, every possible outlet from Buffalo was obstructed by some form of

improvement, except one street, in bad condition which led to no definite destination.

If road improvement is undertaken at all, no reasonable expense should be spared to avoid danger. For example, the Niagara Falls Boulevard, is a bait to every automobilist in the country to enter a succession of death traps. The loss of life and damage to property already incurred on this 20-mile course, balance any conceivable initial expense to insure a freedom from dangerous curves or an additional width commensurate with the amount of travel. The majority of overhead or underground railway crossings, are, on account of grade, narrowness and compound curves employed in their approach, more dangerous than a crossing at grade in the open.

It should be understood that anything in the way of criticism, here presented, is by no means directed against the Highway Commission. On the contrary, this Commission has shown the utmost courtesy in furnishing data and has accomplished wonders in the short time of its existence, especially when we consider that the problems with which it has been confronted are novel and that their solution has been aided only in a very general way by available experience. The principal difficulty seems to be that lack of centralized and coordinated authority characteristic of this country and perhaps impossible of attainment in any country which is fundamentally democratic.

Radium Treatment of Cancer of the Cervix. Palmer Findley, Omaha, *Am. Jour. of Surg.*, Nov., reports 9 cases. All but one were over 48, most in the fifties, but one was 78. One girl of 23 showed advanced cancer. Contrary to what is sometimes taught, excessive child-bearing does not seem to have been a factor. 3 were nulliparae, 2 biparae, 2 triparae, 1 quinquepara, 1 not stated. Three cases regarded as inoperable became operable. Two are alive, one without evidence of return after 10 months, the other with evidence of return after 14 months. In one case radium failed to influence even superficial parts of the growth, and in 3 it was thought that death might have been hastened. In 2 cases, pain was relieved, in 4 only partially or not all. The author is, however, favorably inclined toward radium.

Wandering Tapeworm. Alfred Dean of Grand Forks, N. Dak., *Ther. Gaz.*, Oct., reports a case of abscess over the iliac caecum, apparently faecal from the odor, from which 16 segments of tapeworm were removed in two weeks, beginning one week after the first incision. The patient then discharged 17 feet by bowel, spontaneously.

Balneology-Geologic Considerations.

Dr. FELIX VON OEFELE, New York.

In the palaeozoic era the New England mountains and the Appalachian Mountains were located on the immediate eastern seashore; this is to say that this old seashore of the Middle and South Atlantic areas was further west of the recent seashore. The mesozoic seashore was further east in New England, and, in the South Atlantic area, further west. The kaenozoic motion was an increased emersion in the south and a submersion of the plains of the shore in the north. The original cuneiform shape of the combined Atlantic areas changed to a broad ribbon shape. Very far north of the Canadian Shield, the Hudson Bay submerged and emerged in the palaeozoic era, and submerged again in the sea in the kaenozoic era. The eastern coast plains of mesozoic and kaenozoic group of New England deposits are entirely lost.

The intrusive rocks of the areas are important for the naturally yielded magmatic waters. The relationship of elevation of mountain systems and volcanic eruptions and intrusions allow for the classification of magmatic waters together with the stratum springs in the same division of areas. A large fault filled by intrusive rocks has been caused in precambrian era as the central axis of the elevation of the Adirondack-Appalachian chain. It forms the most eastern district of the Eastern Mississippi area. A bifurcating branch splits and goes in the South Atlantic area where it borders on the Middle Atlantic area, and is the cause of the irregular arrangement of the South Atlantic area. In the mesozoic era a parallel broad intrusion happened toward the east, but is interrupted in its continuity in the Middle Atlantic area. It is evident in the South Atlantic area and in New England. The Pacific shore of Canada, then again Sierra Nevada and Baja California form a large intrusion of Post-Cambrian eras. An intrusive island of the same era is the Salmon Mountains. The kaenozoic era formed many irregular intrusions east of the Pacific Post-Cambrian intrusions, partly reaching the Rocky Mountains. The intrusions of different eras show different petrographic character with influence upon the yielded local mineral springs.

We will learn of large fields or fault lines with a large number of similar neighboring springs. The analytical chemical differences are very little. This circumstance has handicapped the profitable development. The large metropolises, whence come most of the sick people visiting spring resorts, have only some springs of very few classes in the neighborhood, lacking the kinds mostly needed.

SUB-DIVISION INTO BALNEOLOGICAL DISTRICTS

The areas mentioned are based on the orographical character of North America. Their single districts will be based on geology with regard to systems of strata and intrusions.

The relationship between the stratigraphic condition of the surface and the percentage of mineralisation of the spring water has already been shown in the Federal research on the Iowa waters published in 1912. There, generally, the rule is learned that the more recent strata deliver a higher percentage of total solids to the water than the older strata.

These increases show some exceptions. The petrographical influence may be reversed to the geological period. Limestones or dolomites deliver a higher percentage, and sandstones and silicates a lower than expected by this rule. The Ordovician districts of the state of Iowa show 0.02 to 0.04% total solids, Silurian 0.03 to 0.05%, and Devonian 0.03 to 0.10% dissolved in average waters.

The regular arrangement of many geological districts leads to a certain regular arrangement of characteristic waters within the special area. The total solids of Iowan mineral water increase from northwest to southeast. Then, too, the respective figures increase from a covering Iowan to a Kansan, and farther to an Illinoian drift. Wells with less than 0.05% total solids are found within the lower Carbonian in the northwestern part of the state. The total solids of the wells of the later Carbonian are 0.2 to 0.5% in the south and especially in the southwest. The northwestern part of Iowa contains cretaceous deposits with wells of 0.12 to 0.24% total solids.

The influence of geological conditions has been recognized also for the mineral springs of Saratoga, N. Y. John M. Clarke is the geologist of the State of New York. He has the best intentions toward Saratoga Springs as the state property. In 1910 he ordered a re-collection and revision of all evidences concerning the geological surface. He also expects to be able to make additional thrillings for research there.

The decline area of the Rocky Mountains, the Mountain area and the Pacific area are of recent geological date influenced by recent volcanic action. The other five areas belong closer together. That will be seen from the following subdivision into balneological districts. A balneological division and subdivision of North America into systematical areas and districts has never been done hitherto. This first trial cannot be expected to be perfect. The balneology of the future has to correct and to improve my work. I am not a friend of cowardly watchful waiting, and have never been

afraid to make some errors approaching further perfection and to become corrected. The coward may evade these errors. I prefer being an errant fighter for research to being a lazy coward.

A preliminary subdivision of the United States subject to corrections by complete study may follow.

I. MIDDLE ATLANTIC AREA

1. Pleistokaenic district of marine deposits,
2. District of Meiokaen and moraines,
3. Oligokaenic district,
4. Cretaceous district,
5. Triassic district with jurassic volcanic intrusions,
6. Palaeozoic district including the Catskill Mountains,
7. Proterozoic district.

II. SOUTH ATLANTIC AREA.

1. Marine Oligokaenic district,
2. Cretaceous district,
3. Precambrian rocks with mesozoic intrusions,
4. Climatic resorts of Florida.

III. NEW ENGLAND AREA.

1. Nitrated and Borated faults,
2. Silicated low mineralized springs,
3. Sodium chloride spring of the seashore.

The principal districts of New England have already been published in the Buffalo Medical Journal.

IV. EASTERN MISSISSIPPI AREA.

This area will be especially interesting for the readers of the Buffalo Medical Journal.

1. Cambrian and Ordovician ribbon, including a small western part of Newfoundland, a small ribbon on the south shore of St. Lawrence River and the northwest corner of Vermont.
2. Tahonic Mountains and Saratoga fault,
3. Silurian and Devonian of the upper state of New York and vicinity. This district includes the city of Buffalo.
4. Blue Ridge of the Appalachian system including pre-cambrian intrusions and Cambrian and Ordovician deposits,
5. Silurian and Devonian western decline of Appalachian Mountains,
6. Later palaeozoic massive of western Pennsylvania, Ohio, Virginia, Kentucky, Tennessee and Alabama,
7. Silurian and Devonian massive of western Ohio, Indiana and Kentucky,
8. Later palaeozoic district of Michigan,
9. Later palaeozoic district of Illinois, Indiana, Kentucky and Tennessee.

V. WESTERN (AND SOUTHERN) MISSISSIPPI AREA.

1. Kaenozoic and Mesozoic district of western Tennessee, southern Alabama, Mississippi and Louisiana,
2. Kaenozoic seashore of Texas,
3. Later Tertiar of Nebraska, Colorado, Kansas, New Mexico and northwestern Texas,
4. Continental Kaenozoic deposits of North Dakota, Montana and Wyoming,
5. Cretaceous district of Texas overleaping to Mexico,
6. Cretaceous district of western Minnesota, western Iowa, North Dakota, South Dakota, eastern Nebraska and a small part of Kansas,
7. Later palaeozoic district of southern Iowa, western Arkansas, Oklahoma and northwestern Texas,
8. Silurian and Devonian district of eastern Iowa,
9. Presiluric district of Ozarks,
10. Presiluric district of Wisconsin.

VI. AREA OF ROCKY MOUNTAINS DECLINE.

1. Eastern spots of old rocks of North Dakota, Minnesota and Sioux Falls,
2. Precambric Black Hills of South Dakota,
3. Precambric Bighorn Mountains,
4. Precambric Front Range,
5. Precambric Sangre de Christo Mountains,
6. Mesozoic deposits east of the Front Range,
7. Southern part of Rocky Mountains of carboniferous system.
8. Kaenozoic continental deposits of western Wyoming and Utah with Uinta Mountains,
9. Mesozoic deposits of Arizona and New Mexico with small mesozoic intrusions,
10. Field of Kaenozoic intrusion of San Juan Mountains,
11. Field of Kaenozoic intrusion on the boundary of Arizona and New Mexico,
12. Large field of Kaenozoic intrusions of the west shore of Mexico.

VII. MOUNTAIN AREA.

1. Old palaeozoic Salmon River Mountains with palaeozoic and mesozoic intrusions,
2. The very much mixed district of western Utah and Nevada,
3. Palaeozoic district of northwestern California,
4. Large field of kaenozoic intrusions between 45 and 46° lat.; the Blue Mountains of Columbia and Oregon,
5. The Pi-shape connecting Cascade Mountains between the previous and the next district,

6. Large district of kaenozoic intrusions from Yellowstone Park to Cape Mendocino,
7. District of Salt Lake and West Utah and Nevada, with very many intersections of very old and very young deposits,
8. District of intersected kaenozoic intrusions of Southern Nevada,
9. Kaenozoic deposits of southern California and southern Arizona,
10. Old intrusions of Sierra Nevada,
11. Old intrusions of Baja California.

VIII. PACIFIC AREA.

1. Kaenozoic shore of Columbia and Oregon,
 2. Kaenozoic shore of southern California,
 3. Mesozoic shore of middle California,
 4. Palaeozoic shore of northern California.
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Autotherapy in Ivy Poisoning. Chas H. Duncan,, N. Y., N. Y. Med. Jour., Nov. 4. The patient was severely poisoned during defecation in the woods over a clump of rhus, species not determined. (A similar case attracted attention in Buffalo, many years ago, from the same general cause with direct application of the leaves, in lieu of newspaper, toilet paper not then being on the market.—Ed.) In order to secure absolutely specific antibodies, the patient was directed to return to the same place, select a leaf from the same plant (let us trust that the localization was not too exact), chew it and swallow the juice. Within three days he was able to resume his duties as butler. (Dr. Duncan is a graduate of the N. Y. Homoeopathic College, but it should be noted that he advocates autotherapy on broad theoretic and empiric grounds, and that even the insistence on the particular plant is not based on the conception of using a "hair from the dog that bit you," but on the scientific superiority of specific antibodies. We are not yet prepared to accept autotherapy in toto, but it must be admitted that many reports, especially from the war zone, support it to a surprising degree. The licking of wounds is actually prescribed and with claims of good results. If autotherapy is established, even with limitations, it will be only fair to credit Homoeopathy with a far-sighted if somewhat vague conception, of an important therapeutic principle).

Sublingual Medication. W. Paulson, Practitioner, Oct., advocates this method, not merely in an emergency when the hypodermic syringe is not available but as quicker, safer, cleaner and more reliable—of course mainly for alkaloids.

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Etiology: Direct vs. Indirect Theories.

About the time of the Spanish-American and Boer Wars, the fly theory of the transmission of typhoid was in its ascendancy, some going so far as to consider it the principal means of communication. Before this, communication by ice was emphasized, certain extremists minimizing the influence of liquid ice. At various other times, personal contact and milk conveyance have been demonstrated beyond doubt, yet, at present, as years ago, it is almost universally conceded that the paramount factor in the spread of typhoid is drinking water, contaminated pretty directly by excrement.

Certain diseases, as yellow fever, malaria and sleeping sickness, have been shown to be conveyed by insect bites. Even with an abundant potential supply of the ultimate germs, the conveyance of these diseases is, at least, phenomenally rare without the presence of the particular intermediate host, and at most, possible only by a close imitation of the natural method of conveyance. These facts have quite naturally suggested that all diseases may be similarly transmitted, so that prophylaxis might be reduced nearly to a study of entomology and a safeguarding of the insect from the original host, or of the ultimate human host from the insect. But actual experience, positive as well as negative, has shown that the insect transmission applies only to a comparatively few diseases.

At one time, the idea that pulmonary and other respiratory tuberculous lesions were due to direct inhalation of bacilli from dust, seemed too simple to be accepted by the scientific

practitioner. It was held that the infection was always haematogenic—as undoubtedly it may be, for the lungs as for other tissues—that the incubation period was not merely longer than for many other infections, but that it dated back to childhood or infancy, or was actually of foetal origin. More or less associated with these conceptions was that tuberculosis of all forms entered through the alimentary canal, that it was invariably due to infected milk—and then came Koch's surprising denial of this method in toto. We need not discuss the now well-known discrimination of human and bovine types in the human, nor the controversy as to the elimination of tubercle bacilli in the faeces, nor the qualifications requisite in adopting any one theory as to transmission. The main fact to be considered is that the profession has returned to an acceptance of the inhalation theory to account for the majority of respiratory localizations of tuberculosis. Indeed, from the practical standpoint of individual prophylaxis and treatment, we have gone a long way back toward the old conception of tuberculosis as a constitutional disease.

The public drinking cup and towel have nearly disappeared and one can even get closet seat covers from a slot machine, and these advances toward cleanliness and decency undoubtedly reduce the incidence of disease, yet the individual physician, dealing with the individual case, is justly sceptic as to the probability of these routes of infection for venereal or other infectious diseases, and in spite of the large and interesting literature on syphilis insontium, the actual prevailing opinion of the profession is that this and other venereal diseases are, in the great majority of instances, due to the cause ascribed to them several centuries ago.

For several years, almost every infection of unknown germ was ascribed to a filtrable, ultramicroscopic virus. But controls have shown that even a porcelain filter may not be impervious to bacteria and other germs of ordinary size; that the putative ultramicroscopic bacterium of syphilis is, in all probability not a bacterium at all and, at any rate, that it is one of the largest disease germs known, up to the group commonly termed parasites. In other instances hypothetical ultramicroscopic germs have been isolated and, while somewhat smaller than the average, by no means justify this term. In fact, the conception of an extremely minute underworld of life, has nothing to substantiate it.

The fad of ascribing various infections to bad teeth and tonsils is still with us. Far be it from us to advocate a dental cavity, or a tonsillar crypt teeming with bacteria, as conducive to health, but the crude fact is that the infections, rheumatism, pneumonia, tuberculosis, et al., commonly ascribed to these reservoirs of germs often occur in those whose

teeth and tonsils are in remarkably good condition, and often fail to occur in those apparently most fitted to develop them. The present European war will be notable in medical history for many things; among them for the first fairly wide-spread acceptance of the anti-bacterial power of saliva. Ever since the discovery of bacteria as causes of infection, the profession has wondered at the escape of ignorant human beings, dogs and other animals, from the logical result of licking wounds, and has ascribed it to "resistance." Now we have a scientific endorsement of a method of therapy that antedates the human race.

Very recently, the conception of pyorrhea as a specific process has culminated in the announcement of the amoeba and an equally specific means of its destruction. That an amoeba is usually present in pyorrhea is admitted, but it is not definitely established whether it is always present in pyorrhea, and it is pretty well demonstrated that it may be present without distinct evidence of pyorrhea. Sceptic reports are beginning to appear concerning the lethal action of emetine, and the real etiologic significance of the amoeba.

There is no obvious reason for presupposing a specific germ for the separation of the gum from the hair line between enamel and unprotected dentine, nor for the caries that might be expected to follow from ordinary saprophytes. Certain stomatologists have included under the term pyorrhea, cases of recession of the gums and dental caries, without pyorrhoea in the literal sense at all. We may be pardoned for mentioning a case observed at intervals for some years with a dentist who switched from the acidity to the amoebic theory, but persisted in regarding the recession of the gums as justifying the term pyorrhea, although there was never a discharge of pus from about the roots of the teeth. Our theory was that ordinary senile changes were responsible for the recession of the gums and that such small cavities as developed in the exposed roots were inevitable when one considers the ubiquity of bacteria capable of producing caries wherever the enamel is lacking. The lack of literal pyorrhoea was ascribed to the patient's zeal in using thread and tooth brush. The patient sustained a fracture of the jaw, was unable to use thread between the teeth and was compelled to use the brush very gently. The result was that the recession of the gums disappeared entirely.

In discussing this subject from the conservative—possibly some critic may say the reactionary—standpoint, we do not wish to give the impression that established facts in etiology are doubted, or that what appears to be the most direct method of infection is always the real route followed. A priori conceptions must always yield to demonstration of facts.

But, in general, the natural, logical theory, corroborated by observation through a long period of years should be adhered to until definite evidence is submitted for discarding it.

Dreaming.

If we were in the habit of dreaming as many apparently normal persons are, we should dislike to fall into the hands of the modern scientific dream experts. The analysis of dreams runs somewhat as follows: One dreams of visiting a farm. Farmer, in German, is Bauer, and the same word is used for the Jack in cards, indeed the same word, spelled phonetically, is also used in English. Hence, to dream of visiting a farm indicates that the dreamer is a gambler, or would like to be if he had the necessary skill. In a rather limited personal experience, it has seemed to us that dreams depended mainly on external stimuli or recollections of non-personal occurrences, and not to a great degree on the subjective element, including the workings of the sub-conscious ego.

This subconscious self is another matter that bothers us. We would like to see the next article on the subject preceded by a demonstration of a cortical center or, at least, connected with the older spiritual psychology. There are functions controlled by centers not in any way connected with the ordinary intellectual ones and others, originally voluntary, that become more or less automatic, it would be foolish to deny. Nor can we deny that we often think "absent-mindedly" or show peculiar perversions of intelligence under anaesthesia, intoxication in either the narrow or the broad sense, or when fully asleep or drowsy. What we object to, is the use of the term subconscious self, as if each individual were a twin, and as if this self were a demonstrated psychologic and physiologic entity.

Having several times gone over examinations for library assistants and marked ourself 15-20%, and having been often puzzled by the expressions used by small children and very illiterate persons, and obviously conveying to them a very simple meaning, we would dislike to try a mental test according to the modern system. We have visions of being catalogued as mentally developed to the stage of 11 years, 3 months and 18 days, and of being sent to an institution.

We are striving to lead an exemplary life and to avoid anything that would place us under suspicion of having committed a crime. Imagine the inquisition by a devotee of the newer psychology of association. For example, if it were charged that we had drowned someone, we should be so afraid

that some one of the list of words fired at us would suggest water that we would not even dare mention ice or hydrogen, and our endeavor to avoid even dampness would certainly lead to a few seconds hesitation on some innocent word or to a too rapid and not sufficiently obvious suggestion of something kiln-dried. And then it would be only a few simple steps to the 20,000 volt current, for in such a test one must be neither too rapid nor too slow and, unfortunately, we are one of several million whose brains do not always work at the same speed.

There are other modern developments, but we shall close with a toast to the Unimaginative, Pragmatic Man.

Billy Sunday.

Without regard to religious questions, those referring to the sincerity and propriety of Mr. Sunday's expressions, or the ultimate influence of his work, certain points of comparison between the clerical and medical professions are of interest.

This movement is only one of a number indicating the effacement of sectarian lines up to the limit of practical possibility, by religious organizations, quite analogous to similar accomplishments in the medical profession, and in both instances, salutary.

There is a wide-spread opinion, even among men themselves holding firm religious convictions, that religion is popularly held to be an uncertainty, that the clergy exert slight influence in worldly and temporal affairs, and that they are restricted by rather recondite ethical conceptions. As a mere matter of statistics, very nearly 40% of our population is formally connected with religious denominations. This does not include pagan Indians, various heathens and the great body of unattached, nor does it allow, so far as many denominations are concerned, for young children, nor for persons non compos mentis. It is true that religious belief does not always have the practical effect that ought to be expected, but the fact remains that the great majority of our population is "incurably religious," as Dr. Holmes has said.

Offhand, one would say that matters of life and health are only more directly demonstrable than spiritual matters, but that they appeal more directly and immediately to mankind, and that they are of practical interest both to the religious and the irreligious. But actual facts scarcely support these a priori conceptions. We cannot conceive of the need of building a tabernacle for a series of meetings devoted to popular medical lectures, nor of raising a hundred thousand

dollars or more in a moderate sized city for this purpose. On the contrary, almost any hall suffices if not too large, the lectures can seldom attract an audience for more than a brief series, even if as usual the audience is not asked to support them financially, and the speakers are lucky to get their expenses. Nor can it be said that this is due to prior information on hygienic and sanitary and medical topics and to a glut of such lectures—on the contrary, the attraction of popular religious meetings exists in spite of these factors for the respective subject.

Judged by crude standards of numbers and financial support, and both by campaigns of short duration and unusual interest and by routine activities, the clerical profession, considered merely as a profession, has an advantage over the medical profession, so great as to deserve attention. Let it be clearly understood that we allude not to matters of personal interest and personal economics, but, in both sides of the comparison, solely to matters involving the welfare of the community. As what may be termed a taxing power, the clergy not only exceeds the medical profession but the political government itself. This test, though not an elevated one, is generally conceded to be the best practical one of vital interest in anything.

Possibly the real reason for this contrast between the two professions is that, notwithstanding the notion that the clergyman is limited by rigid ethical conceptions, and by principle rather than to practical results, he shows a surprising adaptability to circumstances. Can we imagine, for example, a body of medical men, publicly admitting the necessity of turning over some phase of the science and art with which they are engaged, to a technically untrained and unlicensed outsider, not even free from serious adverse criticism? The recent Haiselden case illustrates the same professional difference from a somewhat different standpoint. Instinctively and almost unanimously, the interest of the medical profession was centered, not in the question as to whether a life might have been saved, not in the absolute fact of professional skill and judgement, but in the ethical principles violated by undue publicity. In contrast, note the almost universal tolerance of the notoriety seeker in the pulpit, by the most modest and retiring clergyman as an individual, and by the various church organizations collectively. This tolerance is equally manifested toward occupants of the pulpit whose lack of a theologic degree or of general education, or whose blatant methods make them strictly analogous to the medical quack, and to those who are more comparable to members of the medical profession who exploit their social and professional prestige to secure publicity, and who are not honest enough

to engage in open quackery. We recollect, for example, the patient submission of a modest clergyman struggling with the problem of a downtown church whose support was gradually dwindling, to the death-blow given his endeavors by a prominent "brother" with almost unlimited financial support, who hired a hall, employed the widest publicity, and entered into immediate competition with the former. Under all these circumstances, differing widely in detail, the average clergyman whose personal ethics are comparable to those of our profession, asks only whether souls are saved. The physician, on the other hand, does not attach so much importance to the accomplishment of cures as to the ethical means employed. In fact, he goes so far in this direction that it is only with an apology to his ethical code, that he uses such words as saved and cured at all. It should be clearly understood that, in these statements, we are trying merely to present facts, not to condemn the attitude of the medical profession. If any censure is due the medical profession for this placing of ethical methods on a higher plane than practical results, it falls equally on the present writer.

A very significant fact in comparing the two professions is that the term congregation refers to a highly organized body of laity, which not only receives the ministry of the clergyman, but which is regularly called together for instruction, and which is a strong and usually unified power to support such social and religious activities as properly come under the professional control of the priesthood. On the contrary, the clientele of the physician—note the absence of a term applying especially to medicine—even when the physician is a general practitioner and so located that his clientele is almost permanently fixed, means almost nothing more than a general list of persons on whom he may call in a professional capacity and usually not of his own initiative. Only occasionally does intimate friendship between physician and patient, and considerable means on the part of the latter, give an opportunity for the former to direct lay forces toward any worthy object. When such opportunity does present itself, it is so occasional that it is impossible to direct it according to any general professional plan, it is often directed according to personal interests, sometimes unwisely, and sometimes even the factor of selfish interest suggests itself. While the benefits accruing are usually considerable, lay benevolence guided by the medical profession is so uncertain and sporadic that it cannot be compared with the definite and regular support to analogous forms of social betterment guided by the clergy.

It should be distinctly understood that this comparison of two professions justly considered as presenting close analo-

gies in general, is not intended to imply a censure of the medical profession, nor do we see just how the suggested improvements of medical and lay co-operation can be brought about. Comparisons are said to be odious, but they are odious only because they tend to disturb the complacent belief that everything is as it should be and that nothing can be improved.

The Two-Cent Newspaper.

The penny papers have generally increased their price to two cents, owing to the greatly increased cost of paper. This factor does not apply so forcibly to journals of moderate issue, for which the cost of type-setting, etc., are relatively more important. It should be remembered, however, that there has been a steady increase in the cost of the mechanic part of publication in the past few years, and we, like others, may be forced to reduce the number of pages or to increase subscription rates. The latter alternative is contrary to the policy of magazines generally. We mention as a fact and not as a complaint, that the manipulator of the keyboard of a linotype machine usually receives a considerably higher rate of compensation than the one who composes on a similar keyboard, matter for publication. We do not refer to professional typewriters but to editors, reporters, and authors, excepting those of established reputation contributing to literary magazines. This exception does not apply in general to authors of scientific and professional books and magazines. In spite of the fact that a newspaper or literary magazine printing many thousand copies of an issue really feels the increased cost of paper to a considerable degree, we venture the opinion that the real reason for the increase in price of newspapers is not the higher cost of paper, but the difficulty of securing sufficient advertising. And the chief obstacle is the competition of circular, bill board and other forms of publicity. The ultimate consumer of newspapers, magazines and advertised commodities, should remember this.

Polygamy and Polyandry. Oscar J. Smith, Medico-Legal Jour. states that the former has existed in almost every country and the latter to a considerable extent and persists in the Leutian Islands, Thibet, Ceylon, parts of Africa and some of the South Sea Islands. The former produces the maximum, the latter the minimum birth rate so that the two customs tend to correspond to maximum and minimum food supplies but are also related to the proportionate birth rates of the sexes. In polygamic Morocco, 3 females are born to 1 male, in Thibet, 3 males to 1 female.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following.

Die Schweren Entzuendlichen Erkrankungen des Dickdarmes.

Ad. Schmidt, Halle, Reprint from Archiv für Verdauungs-Krankheiten, Vol. 22.

Erkrankungen des Pancreas. Die Function Spruefung des Darmes und die Darmdyspepsien. Enteritis und Colitis Acuta und Chronica. Dr. Ad. Schmidt, Halle, Reprint from Spezielle Pathologie und Therapie innerer Krankheiten.

Issued by the author, not on the market. This is a paper-bound book of 138 large pages, illustrated with 13 colored full-page plates and a number of cuts in the text. Bibliographic references are included.

Dangers of Induction of Lungcommotion as a Means of Resuscitation. Dr. Wm. Harrison, Detroit. Pneumatry Papers No. 1. 25 cents.

Transactions of the American Otological Society. 49th Annual Meeting. Washington, May 9 and 10, 1916. 201 pages. Published by the Society. Dr. John B. Rae, Sec., 247 W. 70, N. Y.

40th Annual Report of the Buffalo Eye and Ear Infirmary. For the period Oct. 1, 1915-June 30, 1916.

This institution has been ranked in Class I by the State Board of Charities for 8 years. For the 9 months, 2230 new cases were admitted: 1383 eye, 346 ear, 445 nose and throat, 56 skin. 10,542 separate consultations were made.

Medical Clinics of Chicago, Nov. 1916, Vol. 2, No. 3. Published bi-monthly by W. B. Saunders Co., Philadelphia. About 1200 pages per year, \$8.

Physicians' Visiting List, P. Blakiston's Son & Co., Philadelphia.

This is the familiar, black-pocket list, dated or undated, ranging from \$1.25 for 25 patients per day or week up to \$2.50 for 100 patients (2 volumes a year). Monthly editions can also be secured, that is with half cut leaves so that the

name is entered every month instead of every week. The special feature announced is the new dose list prepared to correspond to the new U. S. P.

The Operating Room by Amy Armour Smith, R. N. Formerly Superintendent of New Rochelle Hospital, New York; Superintendent of Nurses at the S. R. Smith Infirmary, Staten Island, and at the Woman's Hospital of the State of New York. 12mo of 295 pages with 57 illustrations. Philadelphia and London: W. B. Saunders Company. 1916. Cloth, \$1.50 net.

This seems to be a very thorough review of the problem from the nurse's standpoint, even including a considerable glossary of more or less technical words and list of instruments. Questions of ethics and hospital politics are touched briefly but firmly. The very fact that they are mentioned at all serves to call attention to measures for the eradication of evils. It is unnecessary to advise nurses to use this text book—they will or won't according to their conception of the amount of post-graduate interest which their profession warrants. But many physicians might be surprised at the complexity of the problem from the nurse's standpoint and might derive very valuable hints for their own use.

Personal Health by William Brady, M. D., Elmira, N. Y. 12mo of 407 pages. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$1.50 net.

Dr. Brady has not only covered the subject of hygiene but he has illuminated the subject with flashes of wit and he has introduced a good many points of ethics of practical interest to the laity, as the consideration of the quack, the courtesy due the physician, the sad results of teaching a little child to regard the doctor as a bogey. We are not quite prepared to eliminate cold and damp from the etiology of colds though we go most of the way with the author in regarding catarrhal conditions as infections.

Blood-Pressure, From The Clinical Standpoint by Francis Ashley Faught, M. D. Formerly Director of the Laboratory of Clinical Medicine at the Medico-Chirurgical College, Philadelphia. Second edition, thoroughly revised. Octavo of 478 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1916. Price, \$3.25 net.

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We have previously reviewed the first edition and are not surprised that the work has been received so cordially as to require a further edition—and doubtless future ones. The subject is now quite well standardized and no longer in dispute except as to very minor details. Thus, all that we need say is that the author has taken advantage of accumulated experience without having to make material changes in his earlier presentation and that the book is what every practitioner needs as a guide.

Constipation, Obstipation and Intestinal Stasis by Samuel Goodwin Gant, M. D., LL.D. Professor of Diseases of the Colon, Sigmoid Flexure, Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Second edition enlarged. Octavo of 584 pages, with 258 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth \$6.00 net; Half Morocco \$7.50 net.

While the author attacks the problem from the standpoint of the operator, he enters broadly into diagnostic methods and into various non-surgical methods of treatment. Massage and vibratory methods, internal and external hydrotherapy are especially well presented and illustrated. The careful tracing of causes and effects leads to the consideration of most of the intestinal lesions and many others. The preliminary discussion of anatomy, physiology, etc., is excellent, especially the description of the rectal valves with which every one who has had any experience with endoscopy will agree, largely because the author recognizes the considerable variability of these structures. The operations involve many original features and are adequately illustrated.

The Practitioner's Visiting List for 1917. Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size, substantially bound in leather with flap, pocket, etc.: \$1.25, net. Lea & Febiger, Publishers, Philadelphia and New York.

The text portion of The Practitioner's Visiting List of 1917 contains, among other valuable information, a scheme of denition; tables of weights and measures and comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

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Medical Directory of N. Y., N. J., and Conn. Issued by the Medical Society of the State of N. Y., revised to Oct. 10, 1916.

As there has been considerable discussion as to the value of this activity of the State Society, proportionable to the very considerable expense, we will state that in the reviewer's opinion, it is one of the most valuable functions which the Society has assumed. There are listed 14,224 physicians for N. Y.; 2,753 for N. J., and 1,502 for Conn.—respective increases over last year of 68, 179, and 41. Greater N. Y. City has 7,781 physicians, a gain of 96 and the rest of N. Y. State 6,443, a loss of 28. It will be seen that the totals represent changes from 1/2 to 7%. The actual changes are considerably greater: 1.5%-2% of the list is lost by death in any average year. As many more names are gained by any average community and local changes of address amount to as much more. At a conservative estimate, the address list of one year is 5% in error by the end of the same year. We feel strongly that it is worth the cost, for the profession to keep track of itself. If the average physician is not interested to this proportionate amount, in knowing who is dead, where his friends and classmates are, what town and college are associated with a familiar name, whether a man who comes to his attention as a stranger, favorably or unfavorably, has a definite status even in the statistic sense, it is not merely a lack of sentiment but a lack of professional solidarity. We urge every physician to use the directory, to keep alive his various professional affiliations with its aid, and to give prompt notice of any changes and errors that he may observe.

A Practical Medical Dictionary. Thomas Lathrop Stedman, A. M., M. D., N. Y. 4th revised edition, Wm. Wood & Co., limp leather, 1102 pages, \$5.

We have previously commented favorably on this dictionary. The present edition follows the third by only two years. More than a hundred new eponyms have been included, the Basle Anatomic Nomenclature has been indicated throughout, even when not differing from the ordinary terms, and a number of new words have been added and various revisions have been made to bring the work thoroughly up to date. It is practical in no apologetic sense, but is a scholarly work, and even the admission of etymologically objectionable terms is usually indicated.

The Healthy Marriage. G. T. Wrench, M. D., B. S., Dublin.

2d edition. 300 pages, \$1.50. Paul B. Hoeber, 69 E. 59, N. Y.

This is a very practical treatise along the lines indicated. It is not so popular as to render it valueless to the physician and not so technical as to prevent its being placed in the hands of the laity.

The Medical Clinics of Chicago. Volume II, Number III (November 1916). Octavo of 211 pages, 44 illustrations. Philadelphia and London: W. B. Saunders Company. 1916. Published bi-monthly. Price per year: paper \$8.00, cloth \$12.00.

Physician's Daily Memorandum Book. Issued free by the M. J. Breitenbach Co., N. Y.

This is the familiar red-covered memory. We have used it for years for business and social engagements, medical meetings, etc., purely professional calls being marked in the regular visiting lists by a dot for advance dates. The loss of money, time, pleasure and experience which would be inevitable without some such reminder, would in the aggregate, be enormous.

N. Y. State Museum Bulletin, No. 187, published monthly by the University of the State of N. Y. This number consists of about 200 pages, illustrated, including the 69th report of the museum, the 35th of the state geologist, etc. One of the most interesting papers is on recent Landslides in Unconsolidated Sediments.

Annual Report of the Secretary of the Navy, 1916.

The death rate of the Navy was 4.48:1000, as compared with an average of 8:1000 for men of the same age in civil life. Drowning, tuberculosis and pneumonia are the chief causes of death, the first causing almost exactly 1/6 of the total for the fiscal year—51. Of these, 21 were due to the sinking of the F-4. Of 106,392 applications for enlistment, 30.18% were accepted, as compared with a previous average of 52%, the difference being due to relative excess of applicants. The medical corps now includes 362 officers, the increase to maximum strength authorized by the act of Aug. 29, 1916, requiring 683, as well as 84 dental surgeons.

TOPICS OF PUBLIC INTEREST

Location for Physician. An admirable office suite, long used by a physician recently deceased, is vacant. This is a good opportunity for a young physician. Inquire of the editor before 1 p. m.

Influence of War on Canadian Universities. Arts Departments of Toronto, University College, Victoria, Trinity and St. Michael's give a total registration of 1215, against 1853 in 1915-16, 2161 in 1914-15, 1574 in 1913-14, a gradual reduction to less than 50% of the normal. Applied Science: 192 in 1916-17, 345 in 1915-16, 563 in 1914-15, 627 in 1913-14, a gradual reduction to about 30% of the normal. Forestry: 10 in 1916-17, 32 in 1915-16, 48 in 1914-15, 51 in 1913-14, a reduction to 20%. Medicine: 399 in 1916-17, 614 in 1915-16, 660 in 1914-15, 623 in 1913-14, a reduction to about 65%. Undergraduates and graduates of the University of Toronto, serving under the colors, number at present 3020, and over 140 have died.

Canadian Casualties. Out of a total of 59,911 reported to Oct. 31, 1916, prisoners not being included unless counted as presumably dead or missing, 9,457 were killed in action, 3,477 died of wounds, 490 of sickness, 1,027 are presumed to be dead, and 2,245 are reported as missing. Wounded but not dead 43,245. It will be noted that the ratio of killed to wounded is about 1:5, about as for previous wars, though statements have been made that the proportion of killed has been much higher in the present war. Until quite recently in military history, it has been accepted almost as an axiom that deaths from sickness and from wounds are about equal. The very low mortality from disease shows how great advances have been made by military medicine—yet, it is not recognized as a distinct branch. 1,501 cases of typhoid have occurred: 903 among inoculated and 508 among uninoculated, though we understand that the intention has been to inoculate practically all. There were 166 typhoid deaths, rather more than the 10% expected on the average, but not excessive in consideration of the unfavorable factors in military environment. 47 deaths occurred among the 903 cases in inoculated soldiers—5.2%; 119 among the 508 cases in uninoculated soldiers—23.4%. Presumably the antis will note merely that a majority of cases occurred among the uninoculated. 2,118 paratyphoid cases occurred with 29 deaths showing that this is by no means a mild infection but quite as serious as typhoid. 1,968 occurred among inoculated with

22 deaths, almost exactly $11\frac{1}{2}\%$; and 150 among uninoculated, with 7 deaths, about 5% . The moral here is not so plain.

Rabies. Dr. Anderson C. Crowforth, a veterinarian of Lockport, was bitten in the face by a mad dog (diagnosis verified by Cornell University laboratory) about Dec. 15. He received inoculation at the Pasteur Institute of N. Y. Several cases in dogs are reported from near Bergholz, and one in a cow. A man was bitten but he will receive Pasteur treatment. No human cases are reported from Buffalo but a considerable number among dogs. Note: As the influence of a hydrophobia scare is bad in itself, and as many persons are opposed to quarantine, there is need of popular education on the subject. Even from the professional standpoint, it is desirable that reports should be as accurate as possible, and that they should be stated in terms of actual evidence. There are a good many problems to be solved in connection with this disease, both diagnostic and therapeutic, and the utmost care should be taken to avoid false impressions in either direction.)

Six-Year Medical Course. The University of Toronto has decided to lengthen the course to six years, after July, 1918. The first year will be really premedical or collegiate, with amplified courses in physics, chemistry and biology. We understand also that the fifth year at present, or the sixth year under the new requirement, is really a compulsory internship. Thus the change is not so radical as at first appears.

Football Casualties. 15 lives were lost this year as against 16 last year. Probably the deaths from exposure among the onlookers exceed these numbers. Football will become safe when, like baseball, every play will be made without interference. On such a basis would not football be a more brilliant and interesting game, as well as safer?

A Series of Attempts at Criminal Assault are reported from Niagara Falls, various philanthropic institutions being asked by telephone to send a woman on an errand of mercy of some sort, to a desolate locality. In one case, a nurse from the Memorial Hospital was attacked but fought off her assailant. In another case, the Salvation Army was appealed to, but the man in charge refused to send a woman to attend another woman in distress and offered to go himself, but the sender of the message hung up the telephone. Dec. 21, a nurse was decoyed from N. Tonawanda to the River Road but succeeded in fighting off her assailant. The precautionary measures against such miserable practices are obvious.

The Genesee County Home cost, for the fiscal year ending Dec. 1, 44 cents a day per capita. Produce raised on the farm, in addition to that consumed, was sold to the amount of \$4,737.

Tuberculosis Hospital Site. The supervisors of Steuben Co. have voted, 24 to 9, to purchase the Wm. Gelder farm near Bath, for \$7,000. The selection was made partly because this farm adjoins that already occupied by the Almshouse—which may be a good point economically, but is open to some theoretic sanitary objection.

Niagara Falls Hospital Addition. The Memorial Hospital includes a maternity building known as the Louise Memorial, erected at the expense of the late Benjamin F. Thurston. Need has developed for additions to this building, and funds amounting to \$30,000 have been donated by Mr. and Mrs. Hugh Gladding of Providence, as a memorial to Mr. Thurston, who was Mrs. Gladding's brother. The present building will be remodeled and two new wings will be added, each 2 stories high, with a basement 28x50 feet. Other improvements will consist in the installation of elevators, storage rooms, private rooms, a signal system, etc.

Increase of Rates by Niagara Falls Physicians. At a recent meeting of the Academy of Medicine, day rates will be increased from \$1.50 to \$2.00, and night rates from \$2 to \$3

Aggregate Versus Specific Mortality. During the months of June, July and August, N. Y. City had a lower mortality for children under 5 than for many years, in spite of the poliomyelitis epidemic. The various sanitary and hygienic precautions, which proved in vain for the latter, evidently were worth while, on general principles. There is a valuable lesson here, and it is to be hoped that it will not require an epidemic to inforce it in the future, for any city.

Physician Wanted. The position of Secretary to the Georgia Board of Health is vacant at \$2,000 a year. Application should be made to Dr. W. H. Doughty, Jr., Augusta, Ga.

Back Numbers Wanted. Jan., May, Aug. to Nov. inclusive, 1915. Previous announcement superseded. Buffalo Medical Journal.

The N. Y. State Museum, partially destroyed by fire several years ago, will be formally opened Dec. 29. The editor acknowledges the courtesy of an invitation.

Prevalence of Constipation. The 5 and 10 cent stores seem to be doing a large business in pocket size fountain syringes. Either constipation is resuming its former prevalence and the laity imagine that it can be relieved by small enemata so frequently repeated as to require portability or, in quite a different connection, our legislation is burying its head in the sand, to blind itself to the presence of danger—as scientists declare the ostrich does not do.

Tuberculosis Hospitals. Rensselaer, Livingston and Warren Counties have recently voted affirmatively on this proposition, the respective appropriations being \$150,000, \$35,000 and \$50,000. In all, 12 counties have passed measures of this sort, submitted to popular vote. The aggregate appropriation was \$645,000. The total vote was 144,893, of which 87,983 was favorable to the proposition. The average favorable vote of almost exactly two-thirds of the total, is scarcely so high as might be desired, especially when we consider that more than half the voters are not tax-payers, therefore, not voting in behalf of their pocketbooks and that the measure is one that, on its face, would be expected to appeal to the human instincts of the people. While we are inclined strongly to favor the establishment of county hospitals, it should be borne in mind that almost every question referred to popular vote will receive a majority, unless it is plainly objectionable, those who are luke-warm or mildly prejudiced, often failing to vote instead of voting negatively. A two-thirds vote of this nature does not represent a stronger conviction than a 50% vote on a candidate. It is discouragingly small and perhaps explains the small number of counties in which the matter has been the subject of a referendum. The objection of a third of the voters ought to be the subject of careful inquiry. It is merely an unwillingness or inability to assume an additional burden, remembering that at least a quarter of all taxes are for compulsory philanthropy, or its opposition to the commonly accepted professional view as to tuberculosis, or is it due to the conviction that the county hospital does not satisfactorily solve the problem?

Yearly Medical Examination. The American Society for the Control of Cancer and the National Assn. for the Study and Prevention of Tuberculosis co-operated in an endeavor to educate the public in the importance of anticipating serious developments of disease. By matter distributed for publication on Dec. 4, the assistance of the press was sought to make Dec. 6, a national medical examination day. The editor frankly confesses not to have had a single applicant for examination on this day or within the week, that could

in any way be attributed to this agitation. Will our readers kindly contribute their experience? (Answer: They will not, it is too much trouble).

Prize Competition. The Fiske Fund trustees offer a prize of \$200 for the best essay submitted before May 1, 1917, on The Role of Teeth and Tonsils in the Causation of Arthritis. The ordinary requirements of secrecy and typing of Mss. apply. Address Dr. Halsey De Wolf, 305 Brook Street, Providence.

Infantile Paralysis. A case developed in a 13-year old boy, 4 miles north of Perry, N. Y., about Dec. 10. This is the first and, thus far, the only case in the vicinity.

Centenarian. Asa E. Halbert of Portville, Cattaraugus Co., celebrated his 100th anniversary Dec. 14.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The Chautauqua County Medical Society met at Dunkirk Dec. 13. Officers were elected as follows: Pres., J. H. Kellogg, Bemus Point; V. P., Walter Stewart, Westfield and N. E. Beardsley, Dunkirk; Sec., J. W. Morris, Jamestown; Treas., G. F. Smith, Falconer; Censor and Delegate to State Society, V. M. Griswold, Fredonia; Alternate, A. W. Dods, Fredonia.

The Elmira Academy of Medicine held its annual meeting Dec. 2. Dr. LaRue Colgrove gave as his presidential address a paper on Acidosis, which will be published in this journal later, and Dr. F. L. Christian gave a paper on Germ Plasm and Heredity. Officers were elected as follows: Pres., Reeve B. Howland; V. P., Elliott T. Bush; Sec., O. J. Bowman; Treas., Abraham Lande; Trustees, A. H. Baker and G. V. R. Merrill. Dr. R. O. Baker of Montour Falls and Dr. Floyd Breese of Elmira were elected to membership.

The Rochester Academy of Medicine, Section iv., met Dec. 13. The program was as follows: a. "The Relation of Phy-

sicians to Health Insurance." Dr. Albert Bowen; discussion opened by Dr. William B. Jones, Dr. Edward G. Whipple.

b. "The Consideration of the Workmen's Compensation Laws from the Standpoint of the Practitioner of Medicine and Surgery," Dr. Harold Baker; discussion opened by Dr. William H. Cadmus, Dr. Guy L. Howe, Dr. George M. Gelser.

Myron B. Palmer, M. D., Chairman; Curtiss N. Jameson, M. D., Secretary.

Buffalo Academy of Medicine. Stated meeting Nov. 29, with Surgical Section: By-laws, Art. 1 was amended to read: Section 2. "At the stated meeting in March each year for the nomination of officers of the Academy, the date of the annual meeting shall be determined and such date shall not be earlier than June 1, the ending of the fiscal year, and not later than June 15. Program: Exhibition of bone graft cases by Dr. Prescott LeBreton; Symposium on Head Injuries: End results with and without fracture, Dr. James W. Putnam; Treatment with and without fracture, Dr. Herbert A. Smith; Diagnosis with and without fracture, Dr. Marshall Clinton;.

Special meeting Dec. 6 to consider and interpret the portion of Section 1, Article 6, of the constitution "for unprofessional or dishonorable conduct," special reference being had to fee splitting. A regular meeting of the Medical Section followed, Dr. Chas. G. Stockton giving a lantern slide demonstration of Unusual Stomach Conditions.

Section of Obstetrics and Gynaecology, Dec. 13: Indications and Contra-indications for Caesarian Section, Wm. T. Getman; Plea for the Immediate Repair of Obstetric Injuries, Ray H. Johnson, discussion being led by Drs. Potter and Van Peyma.

The Gross Medical Club held its stated meeting at the Hotel Markeen, being entertained by Chester C. Cott. Dr. Charles McKay read a paper "The high caloric feeding in typhoid," (will be published later). Several very interesting and important cases were reported by Drs. Bennett, G. F. Cott, G. A. Phelps (E. Aurora) and others. After dinner, which closed the sessions of 1916, the members and their wives reassembled at the Teck Theater where Drs. Cott and Dowd provided seats for "Just a Woman."

American Medical Editors' Association. The officers elected for 1916-17 were as follows: President, Geo. M. Piersol, M. D., Phila., Pa. (Editor Amer. Jour. Med. Sciences); 1st V. P., Geo. W. Kosmak, M. D., New York (Editor Amer. Jour. of Obstetrics); 2d V. P., Robert M. Green, M. D., Boston, Mass. (Editor Boston Med. and Surg. Jour.); Sec. and Treas.,

J. McDonald, Jr., M. D., N. Y. (Mgr. Editor Am. Jour. of Surg.); Ex. Com., C. F. Taylor, M. D., Phila. Pa. (Editor Medical World); A. S. Burdick, M. D., Chicago, Ill. (Editor Am. Jour. Clin. Med.); D. S. Fairchild, M. D., Clinton, Iowa (Jour. Iowa State Med. Society). Dr. H. Edwin Lewis, N. Y., (Editor Am. Med.), chairman of the Publication Committee and Editor of the Jour. of the Am. Med. Editors' Association. The next annual meeting will be held in N. Y. with headquarters at the McAlpin Hotel on June 4th and 5th, 1917.

The American Congress of Internal Medicine announce its first scientific session at the Hotel Astor, N. Y. City, Dec. 28 and 29. The President, Reynold Webb Wilcox will give an address on the Domain of Internal Medicine and the Purport of the Congress. Symposiums on the Ductless Glands in Cardio-vascular Diseases and Dementia Precox and Duodenal Ulcer constitute the remainder of the program. In an accompanying circular letter, the following explanations of the purpose of the Congress are made:

Although the range and scope of Internal Medicine are well defined, it is a fact that the average practitioner of Medicine and Surgery, and the laity, do not differentiate between the General Practitioner and the Internist.

The trend of modern medicine is by no means toward specialism. A practitioner may devote especial attention to a certain limited field, but the days of the out-and-out stomach specialist, neurologist, pediatricist, etc., are numbered. The public today demands a thoroughly educated physician, an Internist, and not a practitioner who has trained himself in the superficialities of a closely circumscribed field. Specialists of this class can only exist in a transitional period. We know that all the organs of the body are in some way linked together, and we know that the physiology is one coherent process of activity and compensation. The Internist understands this connection. To him belong the day and the future.

The Internist is in the first instance a diagnostician. It is he who dominates or, who ought to dominate, the field. He determines whether or not the case is to be operated upon or treated by other means. It is the Internist to whom has fallen the heritage of the earlier physicians. He is the master, the others are his handmaidens.

The American Congress on Internal Medicine has been called into life, (1) to procure official standing of the Internist, (2) to define the scope of Internal Medicine in the United States, (3) to link the Internists together, (4) to induce a feeling of solidarity amongst them, (5) to further the interests of Internists in general, (6) to advance the science of Biological Medicine in all its features, and (7) to do for the

Internist what has already been done for the co-ordinate practitioner, the surgeon.

The Congress intends to publish various magazines which will cover the entire field of Internal Medicine.

The Congress will meet once a year. It is the purport of the organization that its meetings be largely clinical. At the same time, the great questions of the day, especially those pertaining to Internal and Biological Medicine, will be fully ventilated. For this purpose a referee and co-referee will be appointed by the Committee on Scientific Work some months before the meetings, whose business it shall be to report on the questions submitted to them. General discussions upon these questions will be a special feature of the Congress.

For the purpose of stimulating investigation in the science and practice of medicine and of elevating the standard of medical education in this country, the enactment of just medical laws, of promoting the establishment of a National Board of Health, and to enlighten and direct public opinion on the great problems of health and medicine, the American College of Physicians has been chartered.

It is contemplated that, as far as possible, the officers and councillors of the Congress, shall be also the officers and councillors of the College.

The councillors of the Congress may upon application, nominate any fellow of that body to fellowship in the American College of Physicians, provided he has done meritorious work in some field of Internal Medicine, as specified in the charter and by-laws of that organization.

The American College of Physicians convenes once a year, at the close of the Congress, at which time candidates are elected to fellowships in the College.

President, Reynold Webb Wilcox, M. D., L.L. D., D. C. L., New York; Vice-President, Elias H. Bartley, B. S., M. D., Ph. G., Brooklyn; Secretary-General, Heinrich Stern, M. D., L. L. D., New York; Treasurer, Augustus Caille, M. D., New York.

The Medical Society of the County of Erie held its annual meeting in the Buffalo Medical College on Monday, December 18th, at 8.15 p. m. The following twelve applicants were elected to membership: Dr. Eucarpio Pisani, 257 Front Avenue, Buffalo; Dr. Grace Joslin Shaver, 1225 Clinton St., Buffalo; Dr. J. M. Park, Chaffee; Dr. George C. Barone, 497 Niagara St., Buffalo; Dr. Marvin Israel, Lancaster; Dr. Alice Bennett, 26 Allen St., Buffalo; Dr. Homer A. Trotter, 473 Virginia St., Buffalo; Dr. Joseph F. Trudnowski, Emergency Hospital, Buffalo; Dr. Frank A. Trippe, 298 Niagara St., Buffalo; Dr. John W. Burton, Moses Taylor Hospital, Lackawan-

na; Dr. Leo Edward Reimann, Buffalo General Hospital; Dr. Eugene J. Hanavan, 3 Roanoke Park, Buffalo.

The resignation of Doctor David E. Wheeler was accepted, he having moved to Frederickton, N. B.

The minutes of the last regular meeting and the minutes of the several Council meetings were approved.

This approval carried with it the adoption of the substitute motion to take the place of the motion introduced by Dr. Wende at the regular October meeting, relative to increasing the dues to the State Society \$1.00 per annum, making it \$4.00 instead of \$3.00. The substitute motion is as follows:

Whereas, Two of the purposes of the Medical Society of the State of New York as defined in the constitution Article 1 are "to federate and to bring into one compact organization the medical profession of the State of New York," and "to guard and foster the material interests of its members," and

Whereas, These two purposes are best promoted by the protection offered by qualified liability insurance as conducted by the Society and known as the "Alleged Malpractice Defense," and

Whereas, The Counsel of the Society is inadequately remunerated in view of the marked increase in the demand for "Alleged Malpractice Defense," and the counsel should have an assistant under salary by the Society, and

Whereas, The annual income of the Society is amply sufficient to meet the increased demands for "Alleged Malpractice Defense," therefore in consideration of these whereases, be it

Resolved, That the Medical Society of the County of Erie condemns as unnecessary and impolitic any increase in the "annual per capita assessment on each County Society at a uniform per capita rate throughout the State," as defined in Article VIII of the Constitution, and that it directs its officers and delegates to oppose any attempt to secure any such increase; and

Resolved, That the Medical Society of the County of Erie unanimously promote and support any effort not inconsistent with these resolutions to increase the annual allotment of funds of the Medical Society of the State of New York for the use of the counsel of the Society in the prosecution of "Alleged Malpractice Defense," and that it directs its officers and delegates to so act as to secure such increase.

Annual reports were presented by Dr. J. D. Bonnar, chairman of the Board of Censors; Dr. Harvey R. Gaylord, chairman of the Committee on Legislation; Dr. Nelson G. Russell, chairman of the Committee on Public Health; Dr. John V.

Woodruff, chairman of the Committee on Economics; Dr. Clayton Green, Secretary of the Milk Commission, and Dr. Albert T. Lytle, Treasurer.

Dr. Gaylord advocated the appointment of a paid representative at Albany to look after legislation affecting the medical profession. On motion of Dr. Wende the Society decided to approve the resolution offered by Dr. Cruickshank, of Brooklyn at the last meeting of the State Society, relative to the State Committee on Legislation.

At Dr. Woodruff's request a motion was adopted in which the Committee on Economics was empowered to increase its membership from three to seven, and also to add an associate committee to assist it in its work.

Dr. George F. Cott, a member of the State Committee on Economics, presented an outline of the proposed legislation relative to Compulsory Health Insurance.

On motion of Dr. Woodruff the Society decided to invite Dr. S. Kopetsky, chairman of the State Committee on Economics, to address the Erie County Society on this subject of Compulsory Health Insurance at a special meeting to be held in January.

Dr. Albert T. Lytle also paid an official visit to the Society as President of the 8th District Branch.

The election of officers resulted as follows: President, Dr. Irving W. Potter; 1st Vice-President, Dr. George F. Cott; 2d Vice-President, Dr. James E. King; Secretary, Dr. Franklin C. Gram; Treasurer, Dr. Albert T. Lytle; Censors, Dr. J. D. Bonnar, Dr. Francis E. Fronczak; Dr. Arthur W. Bennett, Dr. A. D. Carpenter, Dr. Frank A. Valente; Chairman of the Committee on Legislation, Dr. Harvey R. Gaylord; Chairman of Committee on Public Health, Dr. Nelson G. Russell; Chairman of Committee on Membership, Dr. Wm. F. Jacobs; Chairman of Committee on Economics, Dr. John V. Woodruff; Delegates to the Medical Society of the State of New York, Dr. Grover W. Wende, Dr. Harry R. Trick, Dr. Arthur W. Hurd, Dr. Irving W. Potter, Dr. Charles G. Stockton.

Dr. Franklin C. Gram, Secretary.

OUR CONTEMPORARIES

The Bulletin of the Medical Society of the U. S., Vol. 1, No. 3, Dec., deals frankly with "discouraging features." It is stated that the Southern Clinic is the only independent journal which has actively supported the new movement. We quote the following paragraph in full:

"If other so-called 'independent' journals would be equally outspoken in support of our new organization we would have

50,000 members in 1917—which we may have, even in the face of their non-support. It is a little strange that journals which have been so full of condemnation of the methods of the present managers of the A. M. A. have remained silent about our new society. Perhaps they are waiting to see what it is going to amount to before espousing its cause. So few of us care to be associated with failures. Possibly (let us hope so), they feel that the best way to effect a reform of the mistakes of the A. M. A. is from within that body rather than through organization of a new society; just as friend Teddy of the Progressives thought of the Republican party; if so, let us see 'em “get a move on.” Meantime our Progressive Party in Medicine will go straight ahead until we attain sufficient strength to say to the older society: Your vicious ways must be changed! and we shall have the necessary force of numbers to **compel** reform in the rival organization.”

We think that the plain fact of the matter is that the independent journals agree with the opinion expressed by this journal in commenting (by request) on the proposition to establish this society. They feel that there should be one national organization, and that whatever evils exist in the A. M. A. should be corrected from within. As an editor and as an individual member of the A. M. A., we have expressed the opinion that certain changes should be made in that body, mainly in the way of more elastic and more popular methods of control. Our pages have never “been full of condemnations of the present managers” and, as a general rule, we do not characterize as vicious an opinion or method that differs from our conceptions of what is best. This new society should also realize that it has raised certain issues which require very careful judgment by the physician contemplating membership. It is easy to say that the code of ethics is antiquated and requires revision, and that it should be interpreted according to its spirit and not its letter. We fully agree with the principle that fees for medical and surgical attendance should be equable and proportionate to skill and labor, rather than to kind of labor performed, and that neither should have a prior claim. We go so far as to say that there are many instances of joint attendance in which the best way to solve the fee-splitting problem is to take the bull by the horns and to split the common bill, equably, even equally—but to do so honestly and openly. If, as charged, fellows of the A. M. A. and of the College of Surgeons have got around the provisions against dishonorable fee-splitting by paying assistants (up to \$18,000 a year in one instance) who were not really assistants but touts, the proper course is evident. But the

new society must make it plain that its revisions of the code of ethics are ethical and sincere.

The Medical Review of Reviews announces a symposium on the Medical Profession from the Standpoint of the Laity, including the names of Andrew Carnegie, John Wanamaker, Nathan Strauss, Israel Zangwill, W. D. Howells, Geo. W. Cable, John Kendrick Bangs, John Philip Sousa, David Starr Jordan, Booker T. Washington, Nikola Tesla and Hudson Maxim and others.

The Louisville Journal of Medicine and Surgery will, with the Jan. issue, become the Mississippi Valley Medical Journal the official organ of the corresponding Association.

Dr. Henry Enos Tuley, Secretary of the Association, will continue as Editor, and a special Editorial Committee, composed of the following, will assist in the editorial policy of the Journal: Drs. William N. Wishard, Indianapolis; Arthur R. Elliott, Chicago; Willard J. Stone, Toledo, Ohio, and Louis Frank, Louisville. A special epitome department will be established, giving each month a review of some special borderline topic which is of interest to surgeon and internist.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Martin Bessemer, Cleveland Homoeopathic 1875, died at his home in Ithaca Dec. 3, aged 66. He was born in the nearby town of Dryden, and studied at Eastman Academy of Poughkeepsie before taking his actual medical course. Death was due to spinal injury received in a fall at Pulaski last spring.

Dr. Francis Mason Hughes, N. Y. University 1877, died at his home on the River Road near Lewiston, Dec. 10, aged 60. He was injured when his auto was struck by a trolley a week before and died of septic pneumonia. His office was at 600 Delaware Avenue, Buffalo.

Dr. J. Glenn Ernest, Niagara 1894, of Chestnut Ridge, near Gasport, N. Y., died Dec. 5 at the Buffalo General Hospital.

Dr. Wm. Everett Palmer, P. & S. 1882, died at his home in Hornell, Dec. 11, of apoplexy., aged 78.

Dr. Erasmus H. Hall, (not listed in State Directory nor Polk) died at his home in Knowlesville, Dec. 9, aged 85. He had practiced medicine 63 years.

Dr. Daniel Hennessey, Geneva 1866, of Bangor, Me., died last month aged 79. He was a member of the surgical staff of the Aide-de-Camp Hospital on David's Island, N. Y., during the Civil War.

Dr. Charles Gray Cole, Albany 1897, died at his home in Binghamton, Oct. 27, aged 51, of pneumonia.

Dr. D. Eugene Block, Toronto University, Veterinary Dept. died of typhoid fever in Lowell, Mass., Dec. 16. He was born in Buffalo May 22, 1873, was educated in the public schools of this city and practiced here for a number of years, moving to Lowell about three years ago. The funeral was held from the residence of his sister, Mrs. Nathan Desbecker, of Buffalo.

Dr. Matthias L. Lord, N. Y. University 1862, died at his home in Rochester, Nov. 28, aged 77. He was a veteran of the Civil War and, from 1868 to 1885, Superintendent of the Monroe Co., N. Y., Insane Hospital.

Dr. Duncan S. Allen, Albany 1864, died at his home in Seneca, on the night of Dec. 22-3, aged 77. He was born in Steuben Co. and came to Seneca about 1870. He was a grand-uncle of Dr. J. S. Allen of Geneva.

PERSONAL

Dr. M. A. Conboy of Buffalo returned from a trip to N. Y. Dec. 11.

Dr. Sergeant P. Martin, who has been for the past three years in the Urological Department of the Mayo Clinic, announces that after January 1st, 1917, he will be associated with **Dr. James A. Gardner**, Electric Building, Buffalo, in the practice of genito-urinary surgery.

Dr. James B. Cross of Buffalo announces the removal of his offices to suite 708 Niagara Life Building, Franklin and Mohawk Streets, Buffalo. Practice limited to urology, cystoscopy and genito-urinary diseases.

ABSTRACTS

Have you ever felt that this department of the BUFFALO MEDICAL JOURNAL was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

It happened that for the December issue there was exactly enough news matter to fill the Journal, without printing any abstracts except those to fill in pages at the end of originals and the advertising pages. It may be frankly admitted that the inclusion of genuine scientific abstracts in the advertising section is partly to insure the reading of this section. That this may not seem too mercenary a motive, it may be stated with equal frankness that this section is what enables a journal to be issued at customary subscription rates instead of a prohibitive amount. Another and more cogent reason is that it is necessary to allow some elasticity in the amount of advertising space, and that the use of scientific abstracts tends to discourage an excess of "readers." After more than five years, we have still not been forced or even permitted to supplant original articles by the issuance of an "all-abstract" number, although for many reasons such an issue has seemed desirable to many of our readers. We wish to repeat that the preparation of abstracts is a valuable means of medical study, that the editor does not begrudge the time necessary, but that he feels that a more general co-operation in the preparation of abstracts would give a broader review of medical literature and a higher grade of judgment in selection and comment, than can be secured from a department of this kind mainly due to one source.

Vicarious Menstruation. U. G. M. Walker of Flint, Texas, *Med. World*, Nov., relates the case of a unipara aged 27 who began 3 years previously to have regular menstrual haematemesis in place of the previously normal uterine flow.

Clinical and Pathologic Diagnosis of Renal Lesions. J. R. Stark, *Cin'ti. Jour. of Lab. & Clin. Med.*, Nov. 600 cases reports with necropsies were studied. In most, the diagnostic terms were obviously used so loosely that only 100 cases were available for analysis and even this number had to be eked out with cases in which it was merely stated that albumin was present, or blood and pus or albumin and casts. The

clinical and post mortem diagnoses agrees in 36, but the author seems to regard this as largely due to coincidence and not usually due to distinctive findings in the urinary analysis. They differed in 26. In 37, the clinical diagnosis was not stated but there were indications of some renal abnormality. What was diagnosed as chronic diffuse nephritis proved to be acute in 9 cases, vice versa in 7. 7 cases of tuberculous nephritis were diagnosed as acute twice, chronic twice and as cystitis once, without designation of the tuberculous element. What was diagnosed as tuberculous nephritis proved to be cancer in one case and two cases each called acute parenchymatous nephritis, or simply nephritis, proved to be chronic diffuse nephritis. (Note: It certainly must be admitted that clinical diagnoses often fail to tell the whole truth about lesions present, perhaps largely because opportunities for thorough investigation are so rarely presented by the case while alive. With special reference to urinalyses, it must also be conceded that many of the clinical terms are, so to speak, conventional, even if accurate attempts at naming the disease are made. For instance, the term chronic parenchymatous nephritis signifies, among other things, kidneys that are leaky for certain dyes, that secrete scanty urine, that, in some way are responsible for rather marked dropsy, that furnish broad casts and casts with marked fatty changes—or what are so interpreted. For example, we found such casts in a case, just before death, which was known to have yielded normal urine four days previously, there being no evidence of antecedent disease, and the case obviously being acute. On the other hand, we noted at several examinations in an elderly alcoholic, albumin and various casts. These examinations extended over a period of a couple of years and we certainly believed the case to be one of chronic nephritis. Following an attack of erysipelas, the urine cleared up entirely and was never subsequently found to be abnormal. Some three or four years before the erysipelas the patient had had anuria for a week. How can such a case be explained and properly diagnosed on the basis of any single or few examinations? But, it should be considered, in general, that a post mortem diagnosis is not absolutely the court of last resort. We have seen men without very much experience, slice a kidney, pick at the capsule and record a diagnosis. In contrasting such a diagnosis with one made clinically, odds as to accuracy are even. Ed.)

Detection of Egg Albumin in Urine. A. Hollande, quoted in *Medico-Legal Jour.*, July, refers to the use of egg albumin to simulate albuminuria by malingerers. (We heard of a case sometime ago in which albumin was added to urine be-

cause a person regretted an application for insurance and wished to be rejected. On the other hand, we once made an examination which was normal except for alkalinity of the urine, which is very uncommon. In this instance, the urine had been passed in anticipation of the visit. A second sample, supplied in our presence, was acid but contained albumin and casts. Probably the applicant had used the heat and nitric acid test and had over-neutralized the urine). In testing the egg albumin, either of two reagents may be used, Maurel's consists of 33% caustic soda, 25 c.c., 3% cupric sulphate, 5 c.c., glacial acetic acid up to 100 c.c.; or a mixture of equal parts of commercial formol solution and glacial acetic acid. 5 c.c. of the reagent is introduced by a pipette at the bottom of a tube containing 5 c.c. of the suspected urine. Immediately or in a few minutes, a ring precipitate occurs which increases on mixing. This does not occur with serum albumin. Rarely a ring occurs with urines containing a large amount of aceto-soluble albumin, albumoses or blood but this precipitate dissolves or, at least, does not increase when the urine and reagent are mixed. (The test might also be employed to detect egg albumin eliminated without assimilation, after raw eggs are taken.)

Adrenalin by Unusual Routes. The Ther. Gaz., edit., Oct., mentions resuscitation of a child by injection of adrenalin into the umbilic stump, and cites experiments by Auer & Gates (Jour. Exp. Med., June), showing that intratracheal injections promptly influence blood pressure in rabbits. Leland Boogher of St. Louis reported in the N. Y. Med. Jour., last summer the use of adrenalin per os, which prompted us to confess that we were another one to use this drug in the same way, in spite of the almost universal denunciation of anything short of hypodermic administration.

Sprue. Thos. R. Brown, Baltimore, Johns Hopkins Hosp. Bull., Oct., quotes Bahr's opinion that sprue is a specific disease, especially prevalent in Ceylon, affecting Europeans especially but not exclusively, variable in severity, with absence or marked failure of intestinal ferments, probably an alimentary toxæmia and probably due to the thrush fungus, *monilia albicans*. Attempts to convey the disease to lower animals, even monkeys, have failed, though Ashford claims to have identified the *monilia* from over 100 cases as a distinct, pathogenic species, which produces a fatal mycotic septicaemia in certain laboratory animals. The author's case showed achlorhydria, much diminished peptic power, and failure of amylase, trypsin and lipase of the pancreas.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

The Prognostic Value and Clinical Application of Studies in Retention.*

RICHARD N. DeNIORD, M. D.,

Dept. of Pharmacology, University of Buffalo.

By retention we mean, any deviation from the normal concentration in the body tissues. The blood being the most accessible tissue, we therefore look to it in most of our studies. Such a deviation in turn brings up studies of vital function of the organs, too numerous and complicated to be covered in the short time allotted this paper. Let us first turn our attention to the kidney as the one organ capable of removing most of these substances from the blood, once a certain concentration or threshold point is reached. The substances which we will consider first are those derived from proteid metabolism. In this group we have many substances to consider, but those which have received the greatest consideration are creatinine, urea and uric acid. Whether of endogenous or exogenous origin, we look to the kidney for the excretion of these bodies, once the normal concentration in the blood is exceeded.

We can therefore conceive of an increased amount of these bodies being present in the blood if kidney pathology exists. Other things being equal we would expect the increase to be proportional for all three. This is not so however, due to the difference in physical constitution of each as shown by the admirable work of Folin and Dennis in Boston and Myers and Fine in New York. This work, as well as our own in Buffalo, shows that the permeability of the kidney varies for

*Read before the Keuka Lake Medical and Surgical Association, July 13, 1916.

different substances and that creatinine penetrates the kidney cells with greatest ease, that next comes urea, then lastly uric acid. That this assertion is reasonable is shown by the relationships learned from studies of nitrogen partitions which exist between the blood and urine, uric acid forming 2% of the non-proteid nitrogen of both blood and urine, urea nitrogen about 85% in the urine and 50% in the blood, and lastly creatinine nitrogen 5% in the urine but only 5% in the blood. It is thus seen that considerable damage must be done to the parenchyma of the kidney before any appreciable retention of a substance like creatinine can take place. Urea, however, occupies an intermediate position, and may conceivably be increased in the blood, when only slight damage occurs to parenchyma either directly or indirectly. In our present discussion, the role of exogenous proteid material together with the role played by the liver or spleen or both is omitted, the kidney alone being considered according to its ability or inability to handle these substances.

The practical question that must of necessity arise in the minds of many, is what clinical application may be derived from such studies? Are these studies necessary for diagnosis? They are not, for I am sure any practitioner with means of ordinary urinalysis tests, together with physical findings, could easily clinch such a diagnosis. It is not therefore from the diagnostic, but rather from the prognostic point of view that their value lies. Experience has shown and still is showing, that in many cases the physical findings as well as the immediate routine urine tests do not give accurate data of the amount of kidney pathology existing. The prognosis while always guarded, is therefore never sure.

How then may the prognosis be made from these nitrogen retention tests? Uric acid being the least penetrable to the kidney cells, either due to its own constitution or to the conditions physical or otherwise which it meets in the blood, we may naturally conclude it to be the first substance of this group to be retained. This fact holds for many of the cases and seems most marked in the interstitial type of nephritis, and may or may not be associated with urea or creatinine retention. Whether this be due to the kidney entirely, or to some associated disturbances of metabolism, we are not prepared to state.

We will next consider urea from the point of view of kidney excretion. This substance is generally associated with the estimated amount of the total non-proteid nitrogen in the blood, and makes up 45% to 60% of this total. The estimation of urea, however, which is a definite chemical entity, is as a rule of greater value than the estimation of total non-proteid nitrogen, although the relationship between the two

is always of interest. As the permeability quotient of urea is an intermediate one, so an increase in its concentration may be interpreted in the same position. It is indeed impossible to conceive of an interstitial type of nephritis without some degree of parenchymatous change; and the greater the degree of interstitial damage, the more the parenchyma will suffer both directly and indirectly. Also in direct relationship to this damage, we have or have not retention of urea in the blood.

On the other hand when we find the easily diffusible creatinine being retained, we know immediately that the condition is growing very grave indeed, owing to the marked damage to the parenchyma. So finely adjusted is this threshold of excretion by the kidney epithelium, that one may prognose with considerable degree of accuracy.

Thus uric acid may be increased in many conditions of nuclear degeneration, as in the leukaemias. Here the endogenous formation of uric acid is more than the kidney can long stand up under, hence the threshold point is raised. We cannot in speaking of uric acid omit gout, and yet our leukaemias with far higher values of uric acid retention have not symptoms of gout. We are therefore dealing with some other factor or factors. Of interest in this line, we have ample proof that most of our gouty patients have associated with their condition varying degrees of arteriosclerosis, and interstitial nephritis. We therefore believe an increase of uric acid in the blood, with normal or only moderately increased amounts of urea, points to interstitial condition of the kidney.

Urea Nitrogen, on the other hand, has a normal concentration in the blood of 12 to 15 Mgms. per 100 Gms. of blood. When this amount is much increased it behooves one to be on guard; and if the retention goes much over 50 Mgms. the condition becomes grave. If, however, the 100 Mgm. level is reached the outcome is practically always fatal.

Creatinine with a much lower threshold, has the normal concentration of about 1.5 Mgms. per 100 Gms. of blood and, when increased at all is a grave sign. If 5 Mgms. per 100 Gms. of blood is reached, it is generally considered fatal.

We have now very briefly considered the permeability of the kidney cells to some of the more common and better known proteid split products from the point of view of prognosis. Whether the fatal effects of the retained substances is due to their direct toxicity, or may merely be a concomitant retention of unknown toxic agents, is as yet undiscovered. With these facts in mind, it is not fair to assume that kidney cells will give the same permeability quotient to substances other than those of proteid origin.

This leads us to the testing of kidney function by means of ingested or injected foreign substances in known amounts. At the head of this class, so far as universal use is concerned, we have the excretion of phenosulphonphthalein, as introduced by Roundtree and Geharty. On this I feel a word is due. This test, if done by those aware of sources of error involved, and competent to follow the technique rigidly, will check with nitrogen retention studies on the blood in a general way. That is to say, if phthalein output in 40% of below, we may look for nitrogen retention increasing as this percentage falls. The misuse and abuse of this test by those not quite appreciating the need of accuracy of technique, has helped materially to cause errors on both sides.

Then again, we have the problem of catheterization to face, and its dangers if this test is rightly done. Another point to consider is seen in cases of partial or complete suppression of urine, a question we will leave until later in the paper. On the whole, it frankly seems to me that the slight discomfort offered to the patient by the withdrawal of blood, cannot be compared with the discomfort of catheterization, etc. Not that I wish to depreciate this admirable work, but rather that I feel time has now offered us a better means of study. Such a statement takes in only general function of both kidneys, and does not consider individual kidney function, in which case phthalein is of great value together with ureteral catheterization.

Leaving the proteid derivatives for a while, let us see what further facts may be revealed by quantitative blood studies. We have blood sugar, which exists normally in amounts of .09% to .15%, that is to say, once such a percentage is increased, we have overstepped the threshold point of the kidney and excretion should begin. If, however, such a kidney is so much damaged that this threshold point is raised, and most diabetics have such kidneys, we may have hyperglycemia without glycosuria, a point that must be born in mind in the treatment of such cases, especially for its prognostic value.

We will next consider the well known symptom complex "Acidosis." By this we mean, that while the blood is alkaline there is either a relative increase in acid or a relative decrease in alkali. When we consider that tap water is more alkaline and distilled water more acid than body tissues, we can readily see how narrow is the margin of reaction in which our body tissues have to work. This reaction must be alkaline, as body cells cannot exist in a neutral or acid state. Nevertheless, acids are continually being formed from the food ingested including the products of muscle metabolism.

How then does the body preserve its alkalinity, even under normal conditions?

For this purpose we have what has been well termed "The three lines of defense," in the shape of carbonates, phosphates, and protein material. These three substances have the power to combine with any acid formed and thus allow of its excretion. As the first line of defense we have the carbonates. The carbonic acid formed by the combination of acid and carbonates is excreted chiefly by the lungs as carbondioxide. If then more acid were liberated in the body and the respirations remained the same, we would have an increased carbondioxide tension in the alveoli of the lungs with a corresponding increased tension in the blood and tissues. This, however, is not the case because the respirations are increased in frequency and occasionally in depth. This increase is due to the stimulation of the respiratory center by the presence of acid radicles or the so-called H-ions in the blood, and is not due to carbondioxide in the blood, as has long been taught. The acids formed from the breaking down of body tissues as seen in severe exercise, with the accompanying dyspnoea, is familiar to all. It is this same symptom that goes on to apnea and death which may be seen in all cases of acidosis. This increased formation of acid and the coexisting utilization of alkali brings on a state of alkali starvation which is most felt in the first line of defense—the carbonates. For this reason we find that with an increase in acid radicle or H-ion there is also a diminished carbondioxide alveolar tension depending on the degree of acidosis, or the retention of acid radicles present. With these findings, one can likewise find that the carbondioxide capacity of the plasma is also reduced in proportion. In the same way and for the same reason, if such a person is given carbonates, they will be retained by the depleted and hungry tissues. The fact has been well brought out by Sellards in the so-called alkali tolerance test. This consists in giving known amounts of sodium bi-carbonate by mouth and observing the effects produced on the urine or blood or both.

Normally if the urine is tested, one would find that 4 to 8 Gms. of this salt will reduce the acidity of the urine to near the neutral point, but in acidosis this tolerance is naturally raised. In such cases, enormous amounts of sodium bicarbonate may be ingested with little or no effect.

In many of these cases of acidosis, one frequently finds the urine either much diminished in amount or complete suppression existing. Whether or not this relative increase in the acid radicle leads to the imbibition of water by cell protoplasm as described by Fischer, I cannot state. Such facts

may be proven *in vitro* and from this deduction are supposed to happen *in vivo*.

Let us consider the next line of defense, the Phosphates. These may combine with the acid radicles and thus form acid salts. These salts are excreted by the kidneys together with the sulphates and chlorides. In this respect the kidneys have a remarkable selective action of being able to excrete the acid portion of these salts and retain varying amounts of basic elements. This being the case, when any damage of the kidney exists one of two things may happen.

On the one hand we have the inability of the kidney to excrete these normally produced acids, in this way causing a retention of H-ions, or we may have a kidney in which this selective action of splitting of acid radicles and retaining some of the basic elements is lost, thus tending to deprive the tissues of basic material. The proportion of the acid radicle or H-ion to the basic radicle or OH-ion would of course be the same in either event, that is, the acid radicle would be relatively increased. As a matter of fact, experimental and clinical investigations tend to prove that this condition of acidosis is due to the retention of normally produced acids or the overproduction of abnormal acids.

A notable example of the production in the body of abnormal acids is seen in diabetes. Here we have the improper combustion of fats, with the production of betaoxybutyric acid, aceto-acetic acid, and acetone. That these ketone bodies are not formed in the digestive tract is proved by the fact that administration by mouth causes no symptoms. The examination of the urine in this respect should not be omitted. The amount is generally diminished, the acidity in terms of decinormal alkali is increased. At this point I would like to mention a word in regard to urine acidity as it is generally done with litmus paper. Such a procedure will certainly tell whether urine is acid or alkaline, but is litmus paper necessary when the appearance and odor offer self explanatory facts? The question then is—How acid is the urine? and titration is one of the easiest means for the average practitioner to obtain such information, although an estimation of the acid radicle or of H-ion content is more accurate, but less available, to the general practitioner.

To sum up this large and important subject "Acidosis," we find it is a symptom complex produced by retention or relative increase in the tissues of the acid radicle. That this may be retention of normal metabolic acids or formation of abnormal acids are also possibilities. That a diagnosis may be made from observation of dyspnoea and alkali tolerance tests in a general way. An absolute diagnosis is arrived at by ascertaining the carbondioxide alveolar tension, the car-

bondioxide capacity of the plasma, or the estimation of the H-ion content of the blood.

In this short paper we have but briefly touched on this general subject of retention, for the field is so broad, the substances so many and complex that a detailed account in one paper at least would be impossible.

The few factors named have likewise been only mentioned for the sake of brevity. The writer at the present time, fully cognizant of the privilege extended him, feels it his duty to help bring within the scope of every practitioner at least an elementary knowledge of the better known chemical entities, together with an application of their values. Whether the substances named will always receive the importance at present given them, seems improbable. For as our knowledge broadens we shall be better able to accomplish the extremely intricate chemical associations and dissociations involved in the life of a cell, which is of course our ultimate goal.

The value that such work extends to the medical man is of course self evident, for by better ascertaining the type of the retention present he can better handle his case, both pharmacologically as well as dietetically. At present the work has pertained mostly to conditions such as nephritis, whether primary or due to some existing cardiovascular pathology, to diabetes, gout and the like. Other conditions are at present receiving more and more consideration, and only time and experience will be able to tell their full value. Thus certain cases of eczema are found to be relieved by guarding the proteid intake and relieving the retention of some one or more products of proteid metabolism. The diarrhoea of infants is another condition found to be associated with the condition of acidosis. In this respect we have also the toxæmias of pregnancy. Thus quantitative studies of the blood have, in our experience, definitely eliminated eclampsia from the class of nephritic toxæmias but just what the toxic element is, we cannot at present state, further than that an acidosis is always found which is only natural following the convulsions of such a condition. Other conditions would hardly warrant expression, as the work done has been so little, and so scattered as to make the statistics very incomplete.

From the surgical point of view, however, many interesting and important facts have been brought to light. This of course does not include acute surgical cases in which time is an important factor. In those cases, however, where a slight delay is possible, we have found that if no retention exists, the case is of course one of good surgical risk. In cases where a retention of any one or several of these products either of acid or proteid nature exists, a preoperative elimin-

ation lessens considerable post operative worry. For many cases bordering on a retention, if operated, are likely to develop a severe retention, or, at best, offer rather a stormy convalescence. The reason for this is not clear. In working out a series of bloods immediately before and up to eight hours after anaesthesia, no distinctive increase in proteid derivatives could be found. On the other hand the relative increase in the acid radicle was quite marked in many of the cases. These are the cases where so much nausea and vomiting are found either during or following anaesthesia. These disagreeable symptoms are abated or entirely removed once the body tissues are properly alkalized. This alkalization of the body must be scientifically done, however, and carried out by making careful acidity tests on either the urine or blood, or both; for, if alkali is given, it must be with a reason and to serve a purpose. The amount demanded by a single individual depends on the amount of alkali starvation such a case presents. Observation alone in these cases, together with empirical dosage of drugs or alkali is of no avail. If such procedures are carefully carried out previous to operation, the patients not only take the anaesthetic better, but are relieved to a great extent of many of the usual post operative discomforts.

There is also that class of patient with such a high retention that only slight reduction is possible. In this class of case the surgeon can of course guard himself accordingly, for is it not fair to assume that if a severe retention of nitrogen bodies exists in the blood, the kidneys must be sufficiently damaged to hold back numerous other toxic agents? This, plus the added metabolic disturbance from nervous and other causes before and after operation, brings on many dangers which the surgeons must come to recognize.

Cock Roaches. Many substances used to kill them simply disperse them. (We recollect a hotel that sprinkled some powder around the dining room, leaving the doorways free. The roaches merely avoided the line of powder and very few were found dead). Bromin or sulphur dioxid vapor, distributed by heat is the best method for quick destruction but has its obvious disadvantages. Creosote, wood naptha, oil of rosemary, eucalyptus, and citronella placed near their haunts may be used to drive them away but are offensive. Odorless powders, non-toxic to human beings or domestic pets, kill insects generally by occlusion of the breathing tubes. Of these sodium fluorid is the best and cheapest.—(Exchange).

The Pharynx.

By JOHN C. WARBRICK, M. D., Chicago.

The pharynx extends from the base of the skull to the lower border of the cricoid cartilage opposite the sixth cervical vertebra, being from about four and a half to five inches long.

Just where the pharynx is situated and what it is may be better understood by giving its numerous attachments.

It may be said it is situated at the back of the nose and tongue in front of the upper part of the spinal column and at the sides behind the posterior pillars of the fauces.

If the comparison can be made the pharynx may be described as somewhat resembling an empty bag of flour, pulled out at the top in several places and narrowed a little towards the bottom.

It walls in and connects closely together all the parts extending from the base of the skull to the opening of the esophagus, thus serving as a kind of a bag to allow the food to pass down into the esophagus. It has the following numerous attachments: To the base of the sphenoid bone and basilar process of the occipital bone; to petrous part of temporal bone; to posterior nares; to lower jaw; to mouth; to larynx; to styloid process of hyoid bone; to the six upper cervical vertebrae; to the posterior maxillary ligament.

Anteriorly it is incomplete, the space being occupied by the cavities of the nose, the mouth and larynx, also the thyroid and cricoid cartilages.

Posteriorly it is connected by loose areolar tissue to the cervical portion of the vertebral column, the longi colli muscles and the recti capitis antici.

Laterally it is connected to the styloid process and muscles.

When at rest the anterior and posterior walls of the pharynx are supposed to be closer together. It communicates with seven openings as follows: Two eustachian tubes; two posterior nares, the mouth, larynx and esophagus. It is wider from side than from before back. Its widest part is at the level of tip of greater cornu of the hyoid bone about 2 inches. Its narrowest part is at the cricoid cartilage where it ends in the esophagus at which place the trachea begins.

A number of important structures are in close relationship to the sides of the pharynx on the outside.

The internal carotid artery is so close its pulsations may be felt through the mouth by the finger.

The common carotid artery is also closely related to it, as well as the internal jugular veins.

The following nerves are also structures, not far away: glosso pharyngeal, spinal accessory, pneumogastric, sympathetic and hypoglossal.

When a person hawks up mucous or scrapes the throat the material comes from the posterior wall of the pharynx, for when one makes an examination mucous in small pieces or string-like may often be seen on either side of the wall, which is more marked in some cases than in others. This is what comes away when the throat is scraped to get rid of it from time to time, when it collects as it does and often causes a tickling in the throat. There is a condition that is called by the peculiar term rheumatic throat in some individuals which may be more or less common.

This is a term no doubt given to chronic pharyngitis, and it is not a good one to use on account of being vague and indefinite. A rheumatic throat means that there is a thickening of the tissue on the posterior wall of the pharynx in one or more places. This tissue becomes fibrous and tied down so that it may be seen as whitish spots on the pharyngeal wall.

It would seem to come from a chronic state and to affect those in middle life or later years.

Destruction of House Flies. Earle B. Phelps and Albert F. Stevenson, Pub. Health Reports, Nov. 3, consider formaldehyd and sodium salicylate as the best. Use 15 c.c. of either the 40% solution of formaldehyd or the powdered sodium salicylate to 500 c.c. of water. Nearly fill a tumbler, cover it with a circular piece of blotting paper and invert a saucer over the glass. Turn the whole combination upside-down and insert a bit of match or tooth-pick to allow entrance of air. A little sugar sprinkled over the paper will add to its attraction for flies. These solutions are practically harmless in the quantities liable to be drunk by children and domestic animals.

Treatment of Syphilis with Luargol, or 102. (St. Paul Med. Jour., Edit., Nov.) Danysz of the Pasteur Institute of Paris has elaborated dioxy-diamino-arso-benzol-stibico-silver sulphate, whose short name and number are as above. 5-10 c.b. doses are efficient, while the toxicity is 0.20 per kilo of rabbit. Injections are given intravenously, repeated every 2 or 3 days. Ordinarily, the first dose is 0.10-.15, increasing to .35. The total dosage required is 1.-1.50. The solutions are easily prepared by dilution of concentrated solutions and administered by 20 c.c. glass syringes, in the office, the patient requiring no after precautions.

The American Mineral Springs and the Settlers.

DR. FELIX VON OEFELE, New York.

The American mineral springs used by the settlers were originally mineral springs learned from the aboriginal Indians. Many Indian springs came into the use of the white man. Others have been lost and were later again discovered. But not all real mineral springs have been discovered by the Indians before the Caucasians arrived. The American areas have been too large and the density of Indian population was too slightly distributed over the entire continent for a complete control. The Kickapoo Magnetic Springs of Warren County, Indiana, were discovered by the Kickapoo Indians June, 1750. Restricted and pushed together into the reservations, the Indians got more opportunity to find a higher percentage of the local mineral springs. They were then too satisfied by a lower degree of therapeutic value in the new restrictions to call a spring a medicinal spring. Such springs were also taken some time by the settlers. Other mineral springs have never been used before by the aboriginal Indians.

The country of the modern United States had already been visited by the Normans from Greenland even about the year 1000. The next visits were in 1497 and in 1584 following the landing of Columbus. But the first settlers of modern United States started in 1606 in Virginia which in 1621 received a fairly liberal constitution. In 1612 New York was first settled. In 1620 the first settlers started in Massachusetts. The "New England Confederation" was formed in 1643 and New York became English in 1667. The Jesuits started to christianize California in 1690.

Virginia, New England including New York, and California became the three centers of practical American balneology and remained the principal districts of balneological interest.

Hunters and trappers used the old Indian mineral springs. We have no individual records; but we are able to abstract from imaginary stories of the literature. Colonel Davy Crockett after his famous single-handed fight with the Mexican lions in the vicinity bathed his wounds in Texas Sour Springs, a spring known to the Indians. Every settler tried to make a fortune in a different direction. The Caucasian settlers learned from the red men of the existence of remarkable mineral springs. Some of them expected to get rich obtaining the property of a powerful mineral spring.

About the end of the seventeenth century, the balneology of the old countries began a new development with the aid of chemistry. The Irishman, Robert Boyle, (1627-1691) de-

tested the reaction of vegetable colors to alkalines and acids. The Frenchman Duclos adapted this method to a systematic research of the French mineral springs. Hierne, Valerius, Bouldue and many other chemists continued to render the balneological chemistry more perfect. The German physician Friedrich Hoffman (1660-1742), followed by Springsfeld and Venel paid particular attention to what they called the mineral spirit of waters and which has since been proved by Joseph Priestly (1733-1804) to be the carbonic acid gas. Carbonic acid at this time was called by different scholars very many different names; it is often termed fixed air. The Swedish chemist, Tobern Olof Bergman made a finishing stroke of perfection (1735-1784) by manufacturing artificial mineral waters. It was a remark of Bergman, that in all ages good physicians were desirous of establishing the salutary art on a firm foundation and have considered it incumbent on them, to submit to chemical analysis such waters as were famous for the cure of any disease.

The balneological analysts of these times resorted to qualitative reaction of color, to precipitation, to distillation, to obtain the proportions of their aerial contents, and to evaporation and to crystalization to find their fixed principles. The real results of these remote times were close to modern analytical determinations, but were obtained with more painstaking labor.

But America was disturbed by continuous wars between England, France and Spain during the first century of balneological chemistry. Since 1765 England had ruled the entire Northern America, Mexico excepted. The Revolution started in 1773. These circumstances retarded the scientific development of American Balneology.

For reconstructions of lost records of the early sixteenth century, the poem *Hiauwatha* of Longfellow (1807-1882) is often used. Longfellow did not correctly separate coarse tribes, such as Ojibway, Iroquois and Dacota. The Dacota "midi"-water in the dialectic Teton shape of "minne" became very much misused on account of this poetry.

For the middle of the seventeenth century, Washington Irving's *Sketch Book* (1783-1859) shows truer local color. *Rip Van Winkle* gives some idea of the life of this time. It is useful to learn for detection of springs and other natural resources.

Shortly after 1690, a Mohawk chief treated a wounded French officer by one of the springs of Saratoga district. This indefinite story is the basis of priority claims of Saratoga Springs. Berkeley Springs, Virginia, claims an older settler history than Saratoga.

In the early part of the eighteenth century, Governor

Spottswood led an expedition from Williamsburg, the capital of the "Old Dominion" to the summit of the Blue Ridge. Not the least of the incentives of his followers was the hope of discovery of the wonderful health-restoring and live-giving waters of which so much had been told his people by the natives of the forests. He was not able to reach Virginia Hot Springs. Not many years elapsed before the sparkling thermal waters of the Hot Springs Valley were known and appreciated by the people of the whole colony.

In 1723, Beaver Lithia Springs were privileged.

In 1750, Stafford Springs, Tolland County, Connecticut went from Indian owners over to settlers.

Sir William Johnson, the English governor of New York, was the friend of the red man. He suffered from gout and was treated in 1767 by Indian medicine men with mineral springs of Saratoga County. He used Old Iron Springs of Ballston Spa at first. But what other springs he used, is an unsettled question; the answers are influenced by the later rivalry between Ballston Spa and Saratoga Springs. It was difficult to reach these springs. Sir William came in August 1767 to Schenectady and found an open road to McDonald's Clearing. A new way was opened through the forest and still has the name of the highway from Schenectady to Ballston Spa. The old spring corresponding to the Old Iron Spring was called "Public Well" or "Iron Railing Spring." There was a clearing there with residues of Indian camps. Later on Sir William used a spring situated further north. It is supposed to have been High Rock Spring. I do not agree that it was this spring. The people of the neighborhood used these springs therapeutically before Sir William; at least one of the McDonald brethren did. Sir William declared the Iron Spring of Ballston Spa public property. It remained the "Public Well" and was excepted as such in all the later contracts.

Sir William recovered in the fall of 1767 so far as to be able to walk the main part from Saratoga Springs to Schenectady on his own feet. This result started the fame of Saratoga Springs in high life.

In 1770, Dr. Constable of Schenectady reported medical effects from the Saratoga Springs.

In 1776, Asa Smith claimed the detection of Clarendon Springs, Vermont, and its medical usefulness.

In October 13, 1777, the English army was beaten near Saratoga, some miles east of Saratoga Springs. Some soldiers of the American army used the different mineral waters of Saratoga County partly as luxurious water, partly for medical indications. Dr. Samuel Tenney of Exeter was one of

the physicians of this army and made observations and prescribed it.

In 1776, authentic records exist of patients actually treated at White Sulphur Springs, West Virginia, but the local tradition claims older use. The fame of this spring caused the adoption of the unscientific name of White Sulphur Springs or variations as Red Sulphur Springs, Black Sulphur Springs, etc., to many other American Springs.

In 1778, the Franciscan mission of Soledad received from the Mexican government Paraiso Hot Springs as private property in Monterey County, California.

In 1782, the first salt was produced from the springs of Mount Clemens, Michigan.

In 1783, George Washington, Governor George Clinton, Alexander Hamilton and Colonels Humphrey and Fish took a trip from Lake George to Schenectady. They went along Saratoga Springs and Ballston Spa. There were dense forests between both towns and twice Washington lost the right direction. The Old Iron Spring of Ballston Spa was furnished at this time only with a dug-in barrel. It was discovered in 1769 a short distance from Public Well.

On September 1, 1783, Samuel Tenney wrote a long letter to Dr. Joshua Fisher and gave in it an account of a number of Medicinal springs at Saratoga in the State of New York. He states the medical use of this water since about thirteen years before, at which time they were discovered by some surveyors. Dr. Young of Albany is known as a professional man prescribing the Saratoga water. The land for several miles round them was a wilderness. The springs have been considerably frequented by the poorer sort of people ever since their discovery. But for want of proper medical directions and necessary accommodations, their usefulness has been hitherto much confined. These remarks concerned High Rock Spring and neighboring springs.

In 1784, Red Spring was discovered at Saratoga Springs.

In 1789, Gideon Putnam of Sutton went to Saratoga Springs and leased 300 acres of land. His ingeniousness first made Saratoga Springs a competitor of European mineral spring resorts.

Soon after the Revolutionary War, settlements were made in Hot Springs Valley of Virginia.

In the latter part of the eighteenth century, General George Rogers Clark made an expedition to Kaskaskia and Vincennes. He speaks in his memoirs of the West Baden Springs, Indiana, as a great resort.

In 1792, Congress Spring was discovered at Saratoga Springs.

In 1793, the above mentioned letter report of Samuel Tenney became published.

In 1793, Valentine Seaman (1770-1817) published a chemical analysis of a Saratoga mineral spring. He was promoted in 1792 at Philadelphia with a thesis on Opium and devoted himself with the fire of youth to the first chemical analysis of an American mineral spring water. He was furnished with all the respective analytical knowledges of his time. This publication forced competitors to similar analyses of their springs. The principal competitor was Ballston Spa.

In 1795, Dr. Vandervoort published the analysis of a Ballston water.

Maybe there are some older gas analyses. Seaman says: "No one has heretofore attempted to analyse these waters. All that has been done was a mere inquiry into the air discharged from them. See Dr. Mitchills experiments, related in the American Museum, vol. 4."

In 1800, the first therapeutic effect was seen with Poland Water, as tradition tells.

In 1802, "Old Springs" also called "Sweet Spring," the oldest spring of Salt Sulphur Springs, Monroe County, West Virginia, was discovered.

In 1802, Gideon Putnam built a part of Union Hall, on the place where Grand Union Hotel, Saratoga Springs, is now situated.

In 1803, Sans Souci Hotel was built at Ballston Spa in competition to Union Hall.

In 1804, the medicinal use of Bedford Springs at Bedford in Bedford County, Pennsylvania, started.

In 1805, many visitors of the new Bedford Springs were recorded.

In 1804, Hot Springs of Arkansas were discovered by Dunbar and Hunter in the district of the Quaquaw Indians.

In 1805, Salt Sulphur, the second spring of Salt Sulphur Springs, West Virginia, was discovered.

In 1805, Columbian Spring was discovered at Saratoga Springs.

In 1806, Hamilton Spring and Washington Spring were discovered at Saratoga Springs. History still shows the evidence of a strong competition of different individual spring owners within Saratoga Springs and with Ballston Spa. At this time Ballston Spa was victorious.

During the winter 1805-1806, Ballston Spa tried to be open as a winter resort.

In 1806, General Pike discovered Manitou Springs, Colorado, an old Indian spring resort.

In 1807, Arkansas Hot Springs starts its history as regular mineral spring place.

In 1808, there appeared in several of the American newspapers an analysis of Ballston Spa Water, said to have been made in France, but without the name of the analyst. It was reproduced in the Medical Repository of New York and again republished in the Monthly Anthology of Boston. This was a falsification.

In 1809, Valentine Seaman seemed to be influenced by Saratoga interests to reedit and augment the publication of 1793. He states the extraordinary accommodations and entertainment furnished at Ballston, equaling the most unbounded wish. He made an analysis of Ballston water, showing the impossibility of the claimed 300% volume of carbonic acid gas. He also made an analysis of the tepid akrotherm Lebanon Springs, stating some experiments done there by the Professors Mitchill, Waterhouse and Post. He recognized the gas of this spring as Nitrogen. He also mentioned four miles west of High Rock Spring a "strong scented sulphureous spring." He mentioned Bedford, Pennsylvania, also as a famous well known mineral spring.

In 1811, the mineral spring of Middletown Mineral Springs, Rutland County, Vermont, used by the Indians since time immemorial was first therapeutically used by the settlers. It contains about 0.017% total solids.

In 1818, the district of Arkansas Hot Springs went from the Quaquaw Indians to the Federal government.

In 1821, Indian Springs, Georgia, with 1000 acres land was excepted from a cession of the Creek nation.

Before the year 1814, Indian Springs, Martin County, Indiana, first used by settlers.

In 1821, Iodine Spring was discovered at Salt Sulphur Springs, West Virginia.

In 1825, Dr. Church of Pittsburgh analyzed the Bedford Magnesia Water.

In 1826, Chase built the bathing house at St. Catharine's Well. This spring may have been used in the years before.

In 1830, Dearborn Spring, Vermont, was discovered and rapidly became famous in the neighborhood.

In 1832, the site of the present springs property of West Baden, Indiana, was first bought from the government.

In 1834, a company of Maryland and Virginia men was formed to develop Fauquier White Sulphur Springs, Virginia. Two large hotels and a number of cottages capable of accommodating 1000 persons were built.

In 1834, the real spring district of Arkansas Hot Springs was declared a Federal reservation.

In 1835, Putnam Spring and Star Spring were discovered at Saratoga Springs.

In 1836, G. Froost made an incomplete analysis of Fernald Springs, Tennessee.

In 1839, Pavilion Spring and United States Spring were discovered at Saratoga Springs.

In 1840, West Baden, Indiana, were developed into a health resort. Dr. John A. Lane built the first hotel.

In 1846, Empire Spring was discovered at Saratoga Springs.

In 1847, Grand View Sanatorium, Berks County, Pennsylvania, was built; it contained Pavilion Spring.

In 1848, Moorman Mineral Well, Washtenaw, County, Michigan, became used.

In 1849, the legislature of Virginia held a summer session at Fauquier White Sulphur Springs, Virginia.

In 1849, the old fashionable Sans Souci Hotel at Ballston Spa was transformed into a State and National Law School. Saratoga Springs was now evidently more successful and the fame of Ballston Spa was broken down.

In 1850, Agua Caliente, Arizona, became the property of King Wolsey. It was within the district of the Apaches. Three times he was plundered by the Indians in vengeance for taking the spring. The ladies bathed in the spring water guarded by armed sentinels on the neighboring hills. Brush shacks were used instead of bath houses.

In 1850, Henry Foster, M. D., built the sanitarium at Clifton Springs. The springs were known before and used by the inhabitants.

About 1850, Powder Springs, Cobb County, Georgia, were discovered.

In 1851, Sans Souci Hotel at Ballston Spa tried again to be a hotel.

In 1855, Dr. Strong's "The Saratoga Spring Sanitarium" was built.

In 1859, Excelsior Spring was discovered at Saratoga Springs.

In 1859, the first professional medical paper concerning Poland Springs, Androscoggin County, Maine, was published.

In 1861, the spring resorts of the southern Appalachian Mountains were well equipped and frequented by wealthy visitors, but they lost all by the civil war, for instance Gailbroth Springs, Tennessee; Greenbrier White Sulphur Springs, West Virginia.

In 1862, the two hotels of Fauquier White Sulphur Springs were burned during a battle.

In 1863, Sans Souci Hotel at Ballston Spa became a boarding school for girls.

In 1865, the first well was drilled at Mount Clemens, Michigan, prospecting for oil, brine was found.

In 1865, Saratoga A Spring and Seltzer Spring were discovered at Saratoga Springs.

In 1865, Cloverdale Lithia Springs, Cumberland County, Pennsylvania, were found as an artesian well by searchers of oil.

After this time Equinox Springs was very famous and was much visited by people from entire New England.

Since the later years of this decade, Professor Chandler made many mineral spring analyses, which are exact and still very useful.

In 1868, Union Spring, Hathorn Spring and Eureka Spring were discovered at Saratoga Springs.

In 1869 and 1870, Eaton Rapids Wells, Eaton County, Michigan, was discovered.

In 1871, the sale of water of Deep Rock Spring, Oswego County, New York, started.

In 1872, Saratoga Vichy, N. Y., was drilled.

In 1873, the first regular bath house was completed at Mount Clemens, Michigan; the brine was used for therapeutic purpose.

In 1876, Fort Crawford Mineral Well was discovered.

In 1876, the Poland Spring House was built for regular cures.

In 1877, a company was formed for the purpose of restoring Fauquier White Sulphur Springs, Virginia; 500 accommodation to 1000 few decades ago.

In 1878, Prof. F. A. Genth again analyzed Bedford Magnesia Springs.

In 1879, Plainfield Sanitarium, New Jersey, was built, claiming a sulphur spring (?).

Up to 1880, Glenwood Springs, Colorado, was included in the Ute Reservation and was not accessible for White Visitors.

In 1881, Man-a-cea Spring was found near Independence, Preston County, West Virginia. The summer was very dry. The vicinity of the spring kept green grass. It was originally used for domestic purposes. The business started later. The name is evidently coined for the purpose of imitating old Indian names and may have first been Panacea.

Lambliia Infection in England. A. Malins Smith and J. R. Matthews, B. M. J., Sept. 16, report three cases apparently autochthonous, only one of the men having been away from England and he for only two days in Holland. (Mac Farland mentions lambliia only in a foot note as a probably harmless parasite and makes no statement as to its distribution).

A Case of Rabies in a Boy Nine Years Old.

By DR. FRANCIS E. FRONCZAK,

Health Commissioner, Buffalo, N. Y.

The following is the history of a case of rabies in a human being as obtained from the family.

T..... C....., age 9, residence Buffalo.

Bitten by a small black and white dog on Thursday, 6 p. m., six weeks ago.

Was walking on the street when the dog ran up to him, snuffed his feet and bit him on the hand.

The boy's father took him to a physician's office, the physician cauterized the wound and informed the father it would be all right. No other medical care given.

The boy remained well until Tuesday, January 9th, when he presented the following symptoms:

On arising in the morning, he looked extremely pale, had a peculiar staring expression and complained of not feeling well. Only drank coffee for his breakfast. On returning from school at noon, laid down most of the time. On returning from school in the afternoon, again laid down, saying he did not feel well. During the evening, he was unusually quiet, indisposed to activity and depressed, and slept poorly during the night.

Wednesday—on arising, looked very badly with staring eyes and startling look, complained of feeling badly and of pain in his hand where he was bitten. Ate little or nothing and remained home from school.

P. M.—General appearance the same, was given a drink of water which, however, he could not swallow on account of intense spasms of the throat, when the physician was sent for. On this first call, the doctor did not say definitely what the trouble was, and he was not informed about the inability to swallow. During the rest of the day and night, the symptoms increased with complete inability to swallow and extreme fright at the sight of water; boy extremely restless and passed a sleepless night.

Thursday—Physician called in the middle of the day and said the boy was nervous and possibly his condition was due to the dog bite, and changed the medicine. During the afternoon all symptoms became intensified, and during the night he suffered a great deal with spasms and difficulty on attempting to swallow, had fever and heavy heart action. Some delirium was present, the boy fancying he saw peculiar things—no sleep.

Friday—All symptoms aggravated, and, in addition, could

not walk (paralysis). Physician called and recommended his removal to the hospital and repeated, the sickness was in consequence of the dog biting. A second physician was sent for, who at once inquired if the child had been bitten by a dog, recognized the condition and informed the family it was too late. Advised removal to the hospital, and that he would send for special treatment as a last resort (Pasteur). During the night the child's condition was serious, all symptoms being intensified.

Saturday—Physician called and informed the family that nothing could be done and the boy would soon die. The boy was removed, however, to the hospital at one o'clock and died that night.

The rule of the Department of Health is to secure the administration of the Pasteur treatment in all cases of biting by unknown dogs, and under all instances where it is not definitely ascertained that the dog is not rabid. In the case in question, through inadvertance or otherwise, no report of the accident was made either to the Police or Health Department, in accordance with the well known regulations in regards to same, the result was the development of the malady after the usual period of incubation.

The unfortunate case is of extreme interest in that it is the first one to occur in a human being in the city in very many years, and that the symptoms were characteristic (pain in the wound, anxious expression, restlessness, laryngeal spasm and dread of water, delirium and later paralysis—a picture which, together with the history, eliminates any other malady).

The incident also serves to illustrate the importance of reporting all cases of dog bites to the Police or Department of Health promptly in order that they may be investigated and the possible development of rabies averted. The department's procedure under these circumstances consists in securing and confining all offending animals at the Pound until the existence of rabies can be definitely eliminated or when, on the contrary the animal has or develops the malady, provision can be made for the Pasteur treatment.

Wassermann Reaction on Tuberculosis. Captains C. A. Shaw and A. T. Cooper, *Am. Jour. Med. Sci.*, Vol. 152, No. 2, studying 290 cases of tuberculosis, conclude that if non-cholesterinized antigens are used, a double plus reaction is as significant of syphilis in a tubercular individual as in any one else but that if cholesterinized antigens are used, tuberculous persons free from syphilis, give a reaction varying from doubtful to double plus in 31%.

BUFFALO MEDICAL JOURNAL

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The Social Importance of Vital Statistics.

It is unnecessary to emphasize the interest and practical value of accurate vital statistics, medically or sociologically. To know the magnitude and exact nature of disease is a long step toward its prevention. Statistics of diseases and death cannot be compiled without reference to population, and hence virtually include the need of other vital statistics, as of birth and marriage.

A generation ago, an excellent family, temporarily in straitened circumstances, placed two little girls in an orphan asylum. They were adopted by two other families and, while leading lives far separated, remained in touch with each other. Their parents, regaining financial independence and even a moderate degree of prosperity, applied for the children but the institution either could not or would not give information as to their whereabouts. The pride and indomitable perseverance of one of the little girls ultimately led to the discovery of the parents, though not to the literal reunion of the family, as family relations with foster parents had been too intimately established and both girls had married.

In the absence of statistics of birth, marriage, etc., kept by local governments, church records or the individual notes of ministers and physicians and undertakers, are often sought, sometimes many years or even generations after the death of the original keeper of the records. Sometimes, the motive is the eminently practical one of establishing a financial claim; sometimes the honor of a woman and of her children

is involved as by the establishment of a legal marriage; sometimes the motive is the readily understood seeking of parents or children by those separated by circumstances though near in ties of blood and natural affection. Ridiculous as it may seem, the pathetic yearning for ancestors or for the social distinction of eligibility to be the son or daughter of an organization often seems to outweigh any possible financial considerations. In the support of several special magazines, of several hundred professional genealogists, in postage and for transportation, our people annually spend several millions a year for this purpose, quite aside from dues and incidental expenses in connection with societies which, of course, yield a social and educational return, not to mention the patriotic sentiment involved. And it should be remembered that very little of this expense is incurred for fictitious or genuine titles but that information is wanted as to descent from very plain people. However we may deride this demand for old vital statistics, it represents, by the reliable criterion of willingness to spend money, and time, a very real desire.

The medical profession necessarily has an important obligation in regard to vital statistics, both from the social and the medical standpoint. Its members should impress the importance of such records upon the laity and should secure accurate registration in all cases.

A Chair of Medical Ethics.

It is occasionally suggested that medical colleges, at least those of more generous endowment, should establish a professorship to instruct students in medical ethics. At first thought, it would seem quite unnecessary to give formal instruction as to good conduct and courtesy yet it must be remembered that there are a good many quite complicated problems which the young man, without much experience or tact and with views based on those of a lay family, often does not adequately comprehend. Some physicians, indeed, go through life, making mistakes not at all chargeable to improper motives. On the other hand, a chair of ethics may be considered somewhat analogous to a chair of morals in a literary college, it would be likely to excite ridicule or further distrust among the laity and there is danger that a man, however conscientious, formally engaged to specialize in ethics, might conceive it to be his duty to imitate the research work in more practical specialties and might present to students, a too elaborate course including recondite methods of dealing with imaginary evils, and a formal and inelastic system of etiquette.

As medical ethics is something to be used along with actual practice, it seems that it would be better to have it presented to students incidentally, by the same men whom he respects as scientific and practical teachers. For instance, at the beginning of clinic sessions, the general principle of privileged communications and professional respect for the confidences of patients, should be put clearly before students; the practical exception necessary for their instruction should be emphasized as an exception; and it should be impressed on the students that each is, in this respect, a consultant, free to discuss with the other consultants, the scientific and clinical features of the case but bound to refrain from prying into purely personal affairs and from communicating any information to outsiders. Possibly by exaggerating somewhat the deference due to physicians bringing in cases, by insisting on their examining or reporting on their previous examinations of the case, before the case is examined by the clinical lecturer, the mutual relations of attendant and consultant will themselves be taught in clinical form. Even without much formal division of the work among the faculty, the two years in which clinical demonstrations occupy a considerable part of undergraduate courses would be ample to impress on students, by repetition and view from different angles, practically all the ethical problems with which they will be confronted. Nearly every graduate now has an interne service. Equal care to show to and to demand from the interne, the practice of ethics and even of etiquette would firmly clinch this teaching and breaches of ethics would be perpetrated only by those so constituted that they would violate the standards of any profession or business. Occasionally a physician, not regularly attending a hospital is offended at the treatment received from an interne and surprised at the stupidity of one who will shortly be dependent to a large degree on the good will that he creates. In many cases of this sort, the interne has been so thoroughly kicked about by those in authority over him that he may even consider this method the proper expression of his own authority. In other cases, he is acting through a mistaken sense of loyalty, sometimes apparently encouraged by his superiors, sometimes due to their neglect to exercise the guidance over the young men in their charge.

As medical colleges approach the ideals and methods of more strictly and generally educational institutions, it becomes possible for them to adopt the assembly of the student body before the work of the day begins, for devotional exercises and for the inculcation of general principles of right which in the chapel talks of schools and colleges are sometimes tedious but which ultimately exert a great influence

for good over the whole after life of the students. Regular meetings of this sort, would develop a sentiment of unity and loyalty among students and would afford abundant opportunity for the establishment of high professional ideals and even for detailed consideration of the principles of ethics by which the profession is guided.

Leaving Out the Patient.

Dr. Robert T. Morris has an excellent article on this subject in the N. Y. Medical Journal for Nov. 4. He dwells on the unnecessary application of interesting scientific methods to cases, often entailing undue expense. We have been more impressed with the tendency on the part of some men to apply the methods of 1850 to the run of their private practice and to select some particular case of 1920 methods, to keep up their prestige. On the one hand, the average patient suffers from the lack of scientific investigation, on the other the exceptional one suffers from being assigned the role of a laboratory animal. In general, we are inclined to believe that the patient is left out of the consideration by the lack of scientific study and methods of treatment, more often than by letting science run to seed for the future instead of being brought to fruition for the immediate problem. But the general ethical problem involves many details. It is perhaps better to remind ourselves that the problem exists in every case, sometimes as a matter of business honesty, sometimes as a more general humanitarian issue, than to attempt to discuss all of its ramifications.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following. Pamphlets, quarterly and similar periodicals, reports, transactions, etc., will, as a rule, merely be mentioned.

Diseases of the Nervous System. By John Eastman Wilson, A. B., M. D., N. Y. Second edition. 682 pages, large 8 vo. Cloth, \$6.00 net. Philadelphia: Boericke & Tafel, 1916.

Anatomic considerations are first presented, under the general title of "Architecture of the Nervous System." Physiology is discussed under the discussion of general symptoms, including the localization of lesions in the brain

and cord. The classification adopted for the detailed discussion of diseases is mainly anatomic but some of the groupings necessarily depart from this method, as: progressive muscular atrophies and dystrophies; the apoplexies (including thrombosis and embolism); functional nervous diseases (epilepsy and hysteria); spasmodic diseases, etc. By the use of paragraph headings as of age, definition, etiology, prognosis, etc., both clearness and brevity are served. The author may be criticized for distinguishing between "treatment" and "therapy" and for using the latter term mainly in the sense of drugs but the distinction of meaning is practically well taken, especially as the drugs used, mentioned only in general terms, might in some instances be open to conflict of opinion. The book is comprehensive and scholarly.

Encyclopedia of Foods and Beverages. Compiled by Artemas Ward, 50 Union Square, N. Y., 748 pages, copiously illustrated, with engravings and colored plates, \$10.

This is stated to be a special edition, under a more general title, of the Grocer's Encyclopedia; A Compendium of Useful Information Concerning Foods of all Kinds, how they are raised, prepared and marketed; how to care for them in the store and home; how best to use and enjoy them, etc. The present title gives a fairer idea of the scope of the work, rather because the original one implies a limitation of study and availability. The work is unique and difficult to describe in brief. It might be spoken of as the pharmacognosy of dietetics but, in addition, it includes a description of twine, paper, etc., included in grocers' stocks but not coming under the classification of foods. It is eminently practical and makes no pretense of covering scientific details of dietetics but it is by no means superficial, nor solely commercial. By a polyglot and unilingual glossary, the common food names are given for French, German, Italian and Swedish. There is an equally needed glossary of "culinary and bill-of-fare items." The colored, full page plates of food plants, fish, cheese, honey, etc., are really beautiful. Beginning where the standard text books on dietetics leave off, it gives a vast amount of practical and scientific information about foods, natural and artificial, which every one who has any serious interest in dietetics, food sanitation, economics of foods, etc., will find invaluable. It will save many hours of unavailing consultation of botanies, inquiries of horticulturists and other raisers of foods, and similar attempts to learn more about foods than is given in ordinary text books.

The Sexual Disabilities of Man. Arthur Cooper, London. Published by Paul B. Hoeber, 69 E. 59, N. Y. 3d edition, revised and enlarged, 227 pages, \$2.50.

It should be understood that this work is devoted to impotence and sterility, rather than to venereal diseases, which are considered only as etiologic factors of the former conditions. Beginning with a very lucid consideration of the semen and zoosperms, it deals both theoretically and practically with the various phases of the subject, in a highly satisfactory manner.

Homoeopathic Therapeutics in Ophthalmology. By John L. Moffat, B. S., M. D., O. et A. Chir, Ithaca. 166 pages, cloth. \$1.25 net. Postpaid. Philadelphia: Boericke & Tafel. 1916.

After a preliminary consideration of Homoeopathy in general, this work takes up the principle items in the materia medica of ophthalmology and then, under the title of repository, reviews the clinical manifestations.

Text Book of Histology. Frederick R. Bailey, A. M., M. D., published by Wm. Wood & Co., N. Y. 5th revised edition, 652 pages, 392 illustrations, \$3.75.

This work is divided into parts as follows: Histologic Technic, the Cell, the Tissues, the Organs. Classifications of systems and apparatus appear mainly under the last heading and it will be noted that the general order automatically reviews and impresses on the mind, preliminary considerations. While the work is by no means abridged, each chapter contains a list of references for further study. Technic is given briefly for each structure, as well as in general terms in the first part. It will be realized, therefore, that the work is not merely one of technical detail, appealing only to the histologist, but one of considerable educational value and general interest. It is scarcely necessary to state that the book is well written and accurate as a source of information.

The Practice of Urology. Charles H. Chetwood, M. D., LL.D., F. A. C. S., N. Y. 2d edition, 310 illustrations, 825 pages, \$5.50, Wm. Wood & Co., N. Y.

Much attention is paid to endoscopy and Roentgenography but ordinary diagnostic methods, including urinary analysis, are thoroughly considered. The work includes venereal diseases, over 100 pages being devoted to syphilis. The frontis-

piece reproduces a series of moving picture films illustrating the operation of nephrectomy. It will be noted that the work is rather more extensive than the recent limited conception of urology. It also combines a consideration of the needs of the urologist, essaying major operations and diagnostic procedures, and those of the general practitioner.

Annual Report of the Surgeon General of the Public Health Service of the U. S., 1916. Government Printing Office, Washington.. 421 pages, cloth binding.

Transactions of the American Surgical Association. Vol. 34, edited by Dr. John F. Binnie, Recorder, Kansas City. Printed for the Assn. by Wm. J. Dornan, Philadelphia. 540 pages, cloth binding. Meeting of May 9-11, 1916.

Transactions of the Section on Obstetrics, Gynaecology and Abdominal Surgery, of the A. M. A., at the 67th annual session, at Detroit, June 13-16, 1916. A. M. A. Press, Chicago. 364 pages, cloth binding.

The Rockefeller Foundation, Annual Report, 1915. 61 Broadway, N. Y. 377 pages, paper covers.

Progressive Medicine, Vol. 19. No. 4, Dec., 1916. Edited by Hobart Amory Hare and Leighton F. Appleman, Philadelphia. Published by Lea & Febiger, Philadelphia. 466 pages, paper covers. Quarterly, \$6 per annum.

Contents: Diseases of the Digestive Tract, etc., E. H. Goodman; Kidneys, J. H. Austin; G. U. Diseases, C. W. Bonney; Various Surgical Topics, J. C. Bloodgood; Practical Therapeutic Referendum, H. R. M. Landis.

Transactions of the 38th Annual Meeting of the American Laryngological Association, Washington, May 9-11, 1916. Published by the Assn., Dr. Harmon Smith, N. Y., Secretary. 326 pages, cloth binding.

The Mulford Digest, Vol. 3, No. 3, Dec., 1916.

This issue commemorates the 25th anniversary of the Mulford Laboratories in and near Philadelphia, is copiously illustrated and deals mainly with serum and bacterin therapy, vaccines and the like. Such work as is here described, bridges the gap between scientific theory and

humanitarian results and should be studied by the medical profession. We may further emphasize that only the narrowest view of ethics prevents a full and cordial acknowledgement by the medical profession of the enormous debt of gratitude that they, as representatives of the health of the people, owe to this type of conservative, yet progressive research and constructive work.

The Mentally Defective Child. Meredith Young, M. D., D. P. H., D. S. Sc., Manchester, Eng., published by Paul B. Hoeber, 69 E. 59, N. Y. 137 pages, \$1.50.

The author, being a barrister-at-law, is able to view this problem from a double standpoint. The work is especially prepared for teachers and enters somewhat into physical stigmata the anatomic and physiologic basis of mentality, discipline and school sanitation and hygiene. One of the best sentences in the book contains this statement: ".....Some of us who are not good at paraphrasing, might run a serious risk of being classed as mentally defective"—referring to tests along the line of somewhat abstruse or extremely trite and obvious questions on ethical points. A number of illustrative cases are given.

The Practical Medicine Series. Charles L. Mix, A. M., M. D., general editor. The Year Book Publishers, 327 S. La Salle St., Chicago. 10 volumes in annual series, \$10.

Vol. 6, General Medicine, Frank Billings, M. S., M. D., and Burrell O. Raulston, A. B., M. D., editors, 342 pages, \$1.50 separately.

Vol. 7, Obstetrics edited by Joseph B. De Lee, A. M., M. D., and Herbert M. Stowe, M. D., editors, 228 pages, \$1.35 separately.

Vol. 8, Materia Medica and Therapeutics, edited by Geo. F. Butler, Ph. G., A. M., M. D. Preventive Medicine, edited by Wm. A. Evans, M. S., M. D., LL.D., Ph. D., 328 pages, \$1.50 separately.

This review of current literature has been carried on for over 10 years, in a highly satisfactory manner. The division of the literature into sections, medicine and surgery usually occupying 2 volumes each, and the grouping of smaller sections with others, offers a convenient and economic choice to those not desiring to cover the whole field of medicine and also facilitates the assembling of the notes. The excerpts are sufficiently full of references as they stand, without requiring consultation of the original sources, unless for special purposes and illustrations are frequently reproduced.

TOPICS OF PUBLIC INTEREST

Deaths of Physicians. The Journal of the A. M. A. published 2,196 death notices in 1916, 14.08: 1000 of an estimate of 158,000 American (including Canadian) physicians. The average, 1902-16, was 15.61. Probably the actual death rate is higher as many physicians drop from professional acquaintance before their death. The ages ranged from 23 to 99, with an average of 25 days less than 60. Years of practice ranged from the first to 77, averaging over 32. 596 were fellows of the A. M. A. The principal causes were senility, 337; heart disease 215; pneumonia 208; cerebral haemorrhage 204; accidental 112; operations 98; nephritis 72; tuberculosis 62; carcinoma 49; appendicitis 40; suicide 39; homicide 15, etc. Of the 112 deaths due to accident, 28 were ascribed to automobiles alone and 17 to grade crossing collisions between trains and automobiles, the total being 45, a trifle over the 2% estimate in the editor's article in the Jan. issue, of this journal.

Radiator Solutions. The latter part of the winter is the dangerous time, owing to the greater tendency of alcohol to evaporate so that the solution, though nominally strong enough to resist the minimum temperature, is considerably below this strength. For example, a solution supposedly of 15% strength, was found to be of less than 10%. As an approximate rule, every 10% of alcohol lowers the freezing point 14° F. below 32°. Also, as an approximate rule, if the radiator is replenished with a solution 5% higher than what is intended, the greater volatility of alcohol will be compensated. Except in an emergency, strong or dilute alcohol should be added only when the engine is cold and just before running. Otherwise, the alcohol will rapidly evaporate and the contents of the radiating system will not mix so as to prevent freezing. A good practical test of contents is to withdraw a little into a bottle—for instance in the evening or, at any rate, after the engine has run long enough to insure thorough mixing—either by siphoning from the top or through the pet cock at the bottom and expose to cold. Usually alcohol insufficient to prevent freezing will at least allow freezing in a slushy, non-expansive form. The freezing point can be quite accurately determined by immersing a thermometer and noting the point at which nearly complete melting takes place.

Tethelin is the name applied to a pituitary extract, isolated by Dr. T. D. Robertson of the University of California. It

is said that experiments tend to support the claim that stature may be quite definitely controlled by the administration of tethelin or the suppression of the secreting function. It is scarcely necessary to state that the somewhat sensational notices in the daily press should not be accepted at their face value.

Professional Opposition to Prohibition. Drs. Wm. H. Welch, W. S. Halstead, Hugh H. Young and Julius Friedenwald, have signed a public protest against proposed legislation in Maryland, which would prevent the use of alcohol in any form in medicines in laboratories, hospitals and medical practice, unless allowed by subsequent legislation. There is also proposed, national legislation, to prevent the mailing into a prohibition state of a periodical advertising an alcoholic liquor. It is obvious that, except from a very extreme standpoint, the cause of temperance is best served by recognizing that alcohol is a drug, and except for its use in the arts and commercially, nothing but a drug. This implies that alcoholic liquors should be advertised in medical journals—and when ideal conditions are reached only in medical journals—and due allowance for this fact should be made in all legislation.

The New York State Civil Service Commission announces examinations on Feb. 24 to fill various positions. Those more or less of interest to medical readers are: Veterinarian, Dept. of Agriculture, \$7-10 a day or \$1200-2500 per year; Muscle Tester (Woman 21-45 years) for after care of Infantile Paralysis, Dept. of Health, \$75 a month; Supervising nurse (same requirements) \$100 a month; Assistant Inspector of Physical Training, Military Training Commission, \$2500-3000. No blanks will be sent out after Feb. 13 and none will be received after Feb. 15.

A Tentative Draft of an Act for Health Insurance has been published by the Am. Assn. for Labor Legislation in N. Y. City. This is stated to be approved by the Council of the Medical Society of the State of N. Y. It provides for a state medical advisory board, elected by the State Medical Societies instead of a single physician member of the state commission. (Note that the definition of "State Medical Societies" should be carefully considered). Medical representation on local boards is also provided for and there is proposed a fair representation of health department, general practitioners and specialists. In case of dispute, reference is to be made to an arbitration committee composed of representatives of the medical profession, of the local health in-

surance fund and an impartial chairman. Certificates of disability are to be issued only by medical officers not permitted to practice, and only on recommendation by the attending physician.

The University of Toronto graduated on Dec. 11, a class of 47, all of whom have enlisted for war service. The senior class has been working without vacation in order to graduate as early as possible.

Patent Bread, unfermented and apparently what was later and is still known in London as aerated bread is mentioned in our issue of June 1862 as just obtainable in Buffalo, being made by Mr. Fuller. This was prepared by forcing carbon dioxid through the dough instead of developing this gas by yeast.

Stature. 1 man in 208 is said to exceed 6 feet.

State Department of Health. Division of Communicable Diseases. Deaths in New York State 1915—Diphtheria 1754; Typhoid Fever 750; Measles 834; Whooping Cough 749; Scarlet Fever 409.

The reports from Erie county during last month indicate that diphtheria was unusually prevalent. The Department, therefore, offers the following suggestions regarding the control of this disease:

1. Take cultures from all suspicious cases of diphtheria and isolate them until a negative report is received. The health officer has a supply of cultures and antitoxin for free distribution.

2. As soon as the diagnosis is made report at once to the health officer and make out a list of persons in contact with the case.

3. Take cultures from persons who have been exposed to the patient. Those from whom negative reports are obtained need not be isolated, but if isolation will be violated the whole household must be quarantined. The health officer will decide on this matter.

4. The discharges from the nose and throat should be wiped away with cloths. The soiled cloths should be placed immediately in a basin containing 5% carbolic acid or placed in a paper bag and later burned.

5. If the case is on a dairy farm, see that Regulation 37, Chapter II of the Sanitary Code is observed.

6. If the case is clinical diphtheria, give antitoxin before waiting for a laboratory report.

7. There is rarely a death when antitoxin is given during

the first day of the disease. If the patient is very sick the intravenous injection of antitoxin will give a quicker response. Further details of method for administering antitoxin will be found on the wrapper of container.

8. Examine exposed infants frequently and give antitoxin when evidence of illness first appears.

9. The Schick test will detect those who are immune.

10. A permanent immunity can apparently be given those who are not immune. See Jour. Am. Med. Assoc. Dec. 25, 1915. Park & Zinger.

HERMANN M. BIGGS, Commissioner of Health.

Quack Advertisements. Assemblyman Robert M. Marsh has introduced a bill making it a misdemeanor to publish advertisements of quacks or so-called specialists. (N. Y. State).

Bread Bill. Senator James W. Walker has introduced a bill requiring that bread must be labeled with a statement of all ingredients aside from the usual ones (flour, water, salt and yeast) and prohibiting the use of poisonous or injurious ingredients. This bill was defeated last year, largely through the influence of the Ward Baking Co. We have no disposition to oppose this Co., though its vehicles do seem to obstruct traffic more than any other single factor, but the bill on its face seems a good one.

Liquor and Tobacco Statistics. In spite of the increase of prohibition states, last year's consumption of whisky reached the record mark of 146 1/2 million gallons for the U. S., as compared with 124 1/2 for 1915. Beer slightly exceeded 61 million barrels, an increase of over 2 million as compared with 1915 but decidedly below the consumption for several preceding years. The seasonal fluctuation in the consumption of liquors is interesting. 80 1/2 more whisky is used in Nov. and Dec. than in the summer while 50% more beer is used in the summer than in the winter. Over 25 billion cigarettes were produced in 1916, as against not quite 18 billion in 1915. The former is the highest record reached. It is possible that contributions to European soldiers account somewhat for the increase though it is ascribed to the growth of the habit among women. It is possible that a compensatory diminution in other forms of smoking tobacco will be observed when the statistics are compiled. If so, the increase in cigarettes may be considered salutary.

Increase in Fees. Boston physicians, to meet the H. C. L., have established rates of \$3 for visits between 8 and 5; \$4

between 5 and 9 p. m.; \$5 for night calls from 9 p. m. to 8 a. m.

Bellevue Hospital has added an ophthalmologic service of a present capacity of 50 beds, in charge of Chas. H. May, assisted by Julius Wolff and John M. Wheeler.

Centenarian. Mrs. Mary Talbot of Ottumwa, Ia., a former slave, whom we have mentioned before, passed her 120th birthday, Dec. 26, 1916.

California Law Requiring License of Drugless Practitioners Upheld. The law of California after exempting regular physicians and surgeons, whose education and license are otherwise provided for, establishes certain requirements, including a knowledge of physiology, for osteopaths, neuropaths, optometrists, chiropractors and other drugless healers, and provides for their license. They were enacted in 1913. On Jan. 8, the U. S. Supreme Court dismissed two suits, brought, respectively by a chiropractor and a "drugless ophthalmologist," on the contention that the law was unconstitutional. Christian Scientists and others treating disease solely by prayer, are exempt. (Note: While we have progressed a long way from the old contention that the practice of medicine meant largely the use of drugs, vestiges of this contention remain in various laws attempting to discriminate between regular and irregular practice. It should be made even more plain that at present, to the public and to legislators and courts, that this distinction is impracticable and that the licensing of a practitioner depends to a very minor degree upon his possibility that without proper education, he will do direct harm with drugs. Very few cases of poisoning by drugs given or prescribed by physicians occur and the few cases that do occur are due mostly to drunkenness. It is not even very frequently that poisoning occurs from drugs administered by pharmacists or irregular practitioners. Those ignorant of the proper use and dose of a drug will usually avoid it altogether, or will employ proprietary tablets and mixtures of stated safe dose. Educational requirements and licenses for physicians and their competitors should be clearly understood to be needed, not so much to prevent direct harm from what the practitioner may do as to what he may neglect to do through ignorance. Ed.)

Equipment of Buffalo Municipal Hospital. \$350,000 has been asked by the West Farm Hospital Commission, to equip the hospital now in course of erection on Grider St. \$600,000

was appropriated for its construction and the purchase of the site.

A Typhoid Carrier has been found among the patients at the Gowanda State Hospital for the Insane. This is the probable explanation of several cases reported.

Automobile Deaths. 729 persons were killed in N. Y. State in 1916, as compared with 663 in 1915. The deaths for N. Y. City were 329. In N. Y. City, trolleys killed 78 and wagons 74. In N. J., the deaths from automobiles were 215 as compared with 241 for 1916. In N. Y. State, only 82 persons were killed at R. R. crossings, as compared with 122 for 1915.

Medical Military Preparedness. Representatives of most of the medical schools of the U. S., at a meeting called by the Commission for National Defense, practically unanimously agreed to co-operate by establishing special courses in military practice, for the senior classes. It is to be hoped that these courses will be thrown open to the profession generally.

Death of Old Twin. John Tunstall of Scranton, died Jan. 2, aged 90, survived by his twin brother Stephen. They were believed to be the oldest twins in the country.

Buffalo Climate. The highest temperature for 1916 was 92° F., July 19. On three other days the temperature reached 90°. Zero weather was reached only on Feb. 1 and Mch 18. For Dec. there was only one clear day. The total precipitation, 3.37 inches and the average temperature, 28°, were merely averages of many years though the Weather Bureau admits that more of the precipitation was in the form of snow than is usual. The principal trouble that we find with the weather bureau, is that, after suffering from heat or cold, or rain and mud, or deep snow, it takes away both the satisfaction of bragging about conditions and the hope of better times in the years to come, by assuring us that we have had just about the average. And, if we look about for a place where the weather is reasonably decent, it is infested with snakes or yellow fever or disagreeable entozoa or the inhabitants are either sanguinary in their customs or, at any rate, not agreeable as companions.

The De Graff Memorial Hospital of N. Tonawanda, through the Superintendent, Dr. John A. Rafter, reports 626 cases treated in 1916 and 361 operations performed.

N. Tonawanda reported 417 births and 201 deaths for 1916, as compared with 420 and 179 for 1915.

Birth and Infantile Death Statistics, issued by the U. S. Census Bureau apparently support the claims of birth restrictionists. It is evident, however, that while the infantile death rate tends to rise, in a sense proportionately, with the birth rate, the thousands taken as a basis for the respective rates are different. However, it must be admitted that the same factors which tend to cause a high infantile mortality in the first year of life, do, to a large degree, continue not only throughout early childhood but much later and that a high birth rate may eventually not produce a rapidly increasing population. Up to about 50 years ago, an average of 4 births per marriage meant a stationary population. Today probably 3 births per marriage result in 2 survivals to maturity, compensating for the inevitable death of the parents.

Country.	Birth rate, per 1000 pop.	Infant-mor- tality rate, per 1000 born alive.
United States (registration area only: 1915)	24.9	100
England and Wales (1913).....	24.1	108
France (1912)	10.0	78
German Empire (1912).....	28.3	147
Austria (1912)	31.3	180
Russia in Europe (excluding Fin- land and the provinces of the Vistula and of the Caucasus: 1909)	44.0	248
Italy (1913)	31.7	137
Spain (1913)	30.4	...
Norway (1913)	25.3	65
Sweden (1912)	23.8	71
Denmark (1913)	25.6	94
Belgium (1912)	22.6	120
Holland (1913)	28.1	91
Switzerland (1913)	23.1	96
Japan (1911)	34.1	157
Australia (1913)	28.3	72

American Physicians Needed in England. As England cannot commission foreigners in the army, it is proposed to offer inducements to some hundreds of young American physicians to serve in the insular hospitals and thus release British physicians for military service.

Cancer Mortality. The Census Bureau has just issued statistics based on the year 1914. For the registration are which now comprises about $2/3$ of the population, the rate has increased from 63 to 79.4:100,000 population, from 1910 to 1914. This may of course be due to greater accuracy in diagnosis, or possibly to inaccuracy due to the propaganda about cancer. In 1910 the rate was 88 for places of over 10,000 population, and only 69.6 for smaller places, in spite of the expectation that the smaller places would have a proportionately larger aged population. Probably the difference is due to failure to discriminate between deaths IN the hospitals of cities and deaths OF residents of the same cities. At any rate this failure, as we have several times pointed out, applies to typhoid statistics. The lowest rate was 45.8 for Utah, the highest 109.9 for Vermont, other wide discrepancies between states being apparently due to differences in average age of population and in the proportionate numbers of negroes and Caucasians. Whether the rate of 80 for the latter and 56.2 for the former is essentially due to racial differences or to the greater vulnerability of the negroes to other diseases and hence average less longevity, is to be questioned. However, the comparison militates against the theory that such diseases as tuberculosis and syphilis, in the individual or by means of establishing a hereditary taint, favor the occurrence of cancer; as well as the theory that hygienic conditions in general or in regard to diet, etc., cause cancer. The rate for females is 96.8, for males 62.4. It is often said that the female has the same general liability to cancer as the male, plus that due to the vulnerability of essentially sexual organs, including the breast. This is an under-statement. About 26% of all cancers are of these organs so that, according to this dictum, females should have just about $1/3$ more cancer deaths than males, whereas the liability of females is actually over 50% greater. As we have elsewhere pointed out (Medical Record, April 18, 1914) cancer is not so far as deaths are concerned, a disease of the menopause. On the contrary, the mortality rate keeps on increasing with age, though our figures, based on earlier reports and referred to deaths in the age period instead of to the corresponding number of persons living in the age period, showed a falling off after the 70th year, to a really low proportionate mortality for advanced ages. The present statistics (1914) the rate being to 100,000 living, the population of the corresponding age period are as follows: under 25, 2.8; 25-34, 13.9; 35-39, 42; 40-44, 78.6; 45-49, 128.6; 50-54, 199.7; 55-59, 305.9; 60-64, 393.1; 65-69, 516; 70-74, 672.3; 75-79, 766.6; 80-84, 889.6; 85 and over, 875.6.

The anatomic distribution of cancers is shown in the fol-

lowing table. Note especially that the rectum and anus, if these statistics are correct, furnish by no means the proportionate number of all intestinal cancers usually taught, and that intestinal cancers in general are far more frequent as compared with gastric cancers than has usually been held.

Deaths, Registration
Area: 1914

Seat of Disease.	Number	Rate per 100,000 population	Per cent of aggregate
Cancer and other malignant tumors (aggregate)	52,420	79.4	100.0
Cancer of the buccal cavity (total) ..	2,270	3.4	4.3
Cancer of the—			
Lip	376	0.6	0.7
Tongue	614	0.9	1.2
Mouth	230	0.3	0.4
Jaw	851	1.3	1.6
Others of this class	199	0.3	0.4
Cancer of the stomach, liver (total)	19,889	30.1	37.9
Cancer of the—			
Pharynx	58	0.1	0.1
Esophagus	605	0.9	1.2
Stomach	12,768	19.3	24.4
Liver and gall bladder	6,458	9.8	12.3
Cancer of the peritoneum, intestines, rectum (total)	6,745	10.2	12.9
Cancer of the—			
Mesentery and peritoneum	485	0.7	0.9
Intestines (except rectum)	4,055	6.1	7.7
Rectum and anus	2,171	3.3	4.1
Others of this class	34	0.1	0.1
Cancer of the female genital organs (total)	8,152	12.4	15.6
Cancer of the—			
Ovary and fallopian tube	451	0.7	0.9
Uterus	7,470	11.3	14.3
Vagina and vulva	184	0.3	0.4
Others of this class	47	0.1	0.1
Cancer of the breast	5,423	8.2	10.3
Cancer of the skin	1,957	3.0	3.7

Cancer of other organs or of organs not specified (total)	7,984	12.1	15.2
Cancer of the—			
Larynx	341	0.5	0.7
Lung and pleura	371	0.6	0.7
Pancreas	686	1.0	1.3
Kidneys and suprarenals	538	0.8	1.0
Prostate	784	1.2	1.5
Bladder	1,014	1.5	1.9
Brain	141	0.2	0.3
Bones (except jaw)	497	0.8	0.9
Testes	121	0.2	0.2
Others of this class	3,491	5.3	6.7

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The Medical Society of the County of Wyoming met in Castile Jan. 11. Dr. A. B. Harding of Castile read a poem, "A Life with a Moral," Dr. N. G. Russell of Buffalo gave a paper on Nephritis, Dr. H. P. Cole one on Correction of Weakness and Deformity and their Correction, Dr. Harold E. Foster of Castile presented orthopaedic cases.

The annual dinner of the **Niagara County Medical Society** was held at the Kenmore Hotel, Lockport, Jan. 27, under the presidency of Dr. J. W. Corman of North Tonawanda.

The **Rochester Academy of Medicine**, Section 1, met Jan. 10, Robt. T. French Chairman, C. Clyde Sutter Secretary. David B. Jewett gave a paper on Focal Infection, Geo. W. Goler on Present Status of Serum Therapy.

During the meeting of the **American Congress on Internal Medicine** in N. Y. in December, the **American College of Physicians** was established and 65 fellows were admitted.

The **Rochester Academy of Medicine** held its annual meeting Jan. 10. Certain changes were made in the constitution

and by-laws so as to have the same fiscal year for business purposes and the tenure of offices, ending in May instead of January. Officers were elected.

The Buffalo Academy of Medicine: Section of Pathology, Dec. 27, Use of X-Ray as a Diagnostic Factor, lantern slide demonstration, Leonard Reu.

Section of Surgery, Jan. 3, Modification of the Usual Club Foot Operation, with Report of Cases, Prescott Le Breton, discussion opened by Bernard Bartow.

Section of Medicine, Jan. 10, Prodromal or Medico-Legal Period of Paresis, Herman G. Matzinger; Treatment of Paresis by Swift-Ellis and Other Methods (lantern slides), John L. Eckel.

Stated meeting of Academy under charge of Section of Obstetrics and Gynaecology, Jan. 17, Appeal for Routine Wassermann Examination in Obstetric and Gynaecologic Hospital and Private Practice, Reuben Peterson, Ann Arbor. Collation served at close of meeting.

Section of Pathology, Jan. 24, Serum Therapy in Pneumonia, Augustus B. Wadsworth, M. D., Director of the State Dept. of Health Laboratory.

The annual meeting of the **Monroe County Homoeopathic Medical Society** was held on Tuesday evening, Jan. 9, in the auditorium of the Rochester Medical Association Building. The officers elected are W. Frank Fowler President, Lloyd H. Clark vice-president, Edmond R. Reynolds secretary and treasurer. The American Institute of Homoeopathy will meet in Rochester on June 17 to 23 inclusive as a guest of the Monroe County Homoeopathic Society. A dinner was given in the association rooms in honor of Drs. Dearborn and Loizeaux of N. Y. Literary program—Some Recent Aspects of Cardio-Vascular-Renal Disease, Dr. David B. Jewett, discussion opened by Dr. Lucius L. Button; The Coming Institute Meeting, Dr. Frederick M. Dearborn, N. Y. City, discussion opened by Dr. John M. Lee; General Observations on the Workmen's Compensation Law, Dr. Harold H. Baker, discussion opened by Dr. Frank Bascom; A Discussion of Late Additions to Our Obstetric Literature, Dr. Leon S. Loizeaux, N. Y. City, discussion opened by Dr. William W. Winans.

OUR CONTEMPORARIES

The Canadian Practitioner & Review reprints in its Jan. issue, our editorial on "Doing Nicely;" the Memphis Medical Journal and the N. Y. Medical Journal, that entitled "Those

Were Happy Days." The latter editorial narrowly missed the waste basket and we are naturally gratified that more impartial criticism was less strict than our own.

The Archives Medicales Belges, is issued from the Cabour Military Hospital, Adinkerke, beginning with Jan. 1917.

Beginning with the January issue, the Providence Medical Journal, supported by the Providence Medical Assn., becomes the Rhode Island Medical Journal, conforming in size of page and advertising standards to the state journals generally. Dr. Roland Hammond and Dr. J. F. Hawkins of Providence are, respectively, editor and business manager.

Dr. Philip Schrainka, of St. Louis, has severed his connection with the Interstate Medical Journal and will start a journal of his own, known as Medicine and Surgery, the first issue being in February 1917.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. F. S. Kaynor, Geneva (class not stated) died at his home in Amea, Ia., Dec. 22, of paralysis, aged 95. He was about to celebrate his 71st wedding anniversary. He formerly practiced medicine in N. Y., Wis., Mo. and finally at Cedar Rapids, Ia., but retired from active practice some years ago. His wife survives him.

Dr. Richard Edward Sweeney, Niagara 1898, of New York City, died at the Gouverneur Hospital Dec. 25, from burns caused by the upsetting of an oil stove.

Dr. Edwin Mayo Bangs, Boston University 1878, died at his home in Ithaca, Dec. 24.

Dr. Paul M. Pilcher, P. & S. 1900, died at his home in Brooklyn, Jan. 4, aged 40. He was the first editor of the Long Island Medical Journal and a surgeon of note. He is survived by his father, Dr. Lewis S. and his brother, Dr. James T. Pilcher of Brooklyn.

Dr. Claude Lamont Wheeler, McGill 1889, died at his home in Flatbush, Brooklyn, Dec. 30, of pneumonia, aged 53. He

succeeded Dr. Frank P. Foster in 1909, as editor of the N. Y. Medical Journal, having previously served on the staff of American Medicine, and, since 1902, of the N. Y. Medical Journal. He was for some time a member of the staff of the Manhattan Eye, Ear, Nose and Throat Hospital.



Claude L. Wheeler

Dr. Charles Christian Dellenbaugh, Buffalo 1859, died at his home in Portland, Mich., Dec. 25, 1916, aged 82. He had

practiced in Portland for over 50 years. By error, he was starred as dead in the Alumni Catalogue of the Medical Dept. of the University of Buffalo, when it was issued in Oct. 1915. We request information of alumni whose address is unknown and of whom it is not even known whether they are dead or alive. In fact, we are always glad to receive information correcting errors or supplying omissions in either this catalogue or the State Directory.

Mrs. Lucia T. S. Ingraham, widow of Dr. Henry D. Ingraham of Buffalo, died Jan. 3.

Dr. Morris O. Pitcher, (data as graduation lacking in Polk, not listed in State Directory) died at his home in Sardinia, Jan. 16.

Dr. George W. Grabenstatter, Buffalo 1900, of Buffalo, died at the General Hospital, Jan. 3, after a second operation for appendicitis. He was born in Buffalo in 1871. After graduation, he served at the Fitch Hospital as interne and then entered the U. S. Army, serving as surgeon in the Philippines for two years, then spending a year in travel through China and other eastern countries. He had practiced in Buffalo since 1903.

Mr. John Tilma, prominent among Buffalo pharmacists, died suddenly in the building of the Iroquois Gas Co., Jan. 17, aged 62.

Dr. John O. Aldrich, Cincinnati 1883, died at his home in Bath, Steuben Co., N. Y., Jan. 18, aged 68.

Dr. Charles E. Bennett, Syracuse 1880, of Cortland, died at the Cortland Hospital, Nov. 30, of septicaemia, aged 58.

Dr. Amos L. Sweet, N. Y. University 1866, died at his home in Geneva, Jan. 2, aged 70.

Miss Marguerite Washington, a Philadelphia painter of portraits and miniatures and widely known to the medical profession for her anatomic illustrations, died Jan. 11. She was a great great-grand-niece of President George Washington.

Dr. Blinn A. Harris, N. Y. University 1885, of Norwich, Chenango Co., N. Y., died Dec. 23, as the result of serious cardiac disease of 5 years' duration.

PERSONAL

Dr. Frank Brundage will move his residence and office to his new home, 572 West Ferry Street, March 1st.

Dr. Frank A. Vanente of Buffalo, a member of the hospital corps of the 74th Regt. has been commissioned as first lieutenant and assigned to the 3d Artillery (formerly 65th Infantry).

Dr. Louis J. Beyer has bought 449 Delaware Avenue, Buffalo.

Dr. George W. Cottis of Jamestown leaves early in Feb. for service in a base hospital of the British army in France, as a member of the Harvard unit.

Dr. Z. J. Lusk of Warsaw is in Florida, expecting to return about the middle of Feb.

Drs. S. N. Borowick, Leon J. Kurek and V. B. Besczynski of Buffalo, have been appointed Camp Physicians of Kosciuszko Woodmen's Camp, No. 92.

ABSTRACTS

Have you ever felt that this department of the **BUFFALO MEDICAL JOURNAL** was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Cephaline in Amoebiasis. Sidney K. Simon, New Orleans, N. O. Med. Jour., Dec. 1916. This new alkaloid of ipecac has at least an equal amoebicidal (amoebectanic?) action on free-living entamoebae as compared with emetine, promises greater success with encysted organisms, produces less diarrhoea but more nausea and vomiting and greater irritation and pain when injected subcutaneously. No evidences of toxæmia were noticed following the small therapeutic doses. A combination with emetine, for hypodermatic injection, is suggested.

Nonsurgical Treatment of Cancer vs. Surgical. G. N. Murphy, Paducah, Ky., Med. Summary, Oct., quotes McFar-

land as having operated on 118 cases with 2 cures, Samuel Gross as having operated on 408 cases of cancer of the breast with 1 cure, all the rest dying of recurrence within 3 years, D. Hayes Agnew as having removed enough cancerous breasts to fill a cart without saving a single life. Murphy claims between 300 and 400 cases treated without the knife and the saving of 80-85%. Cuts by courtesy of author and editor.

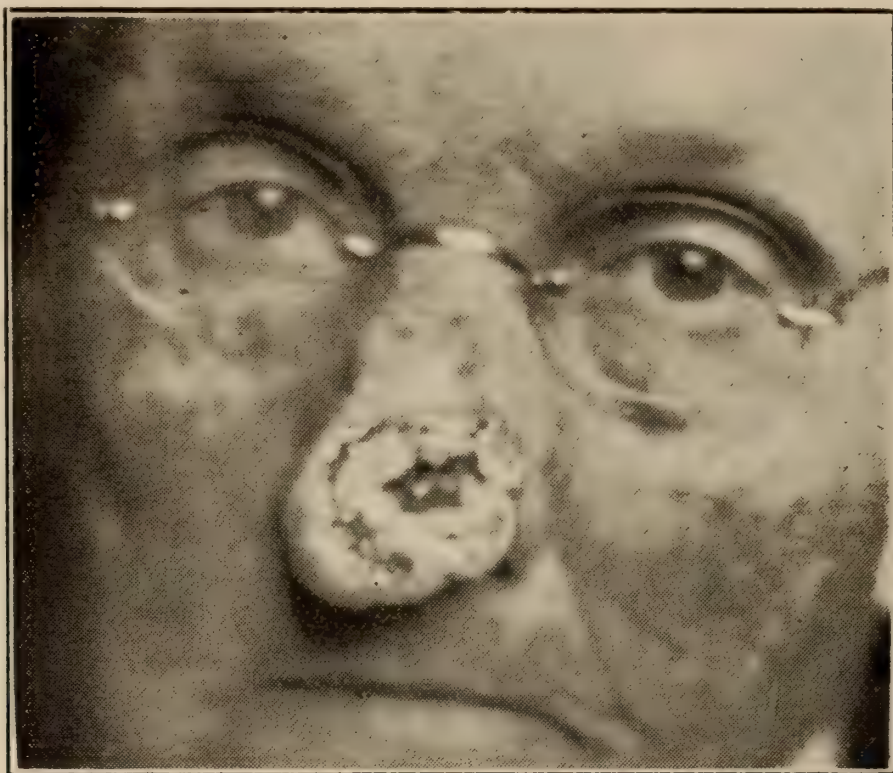


Fig. 1. Showing case at the beginning of treatment.

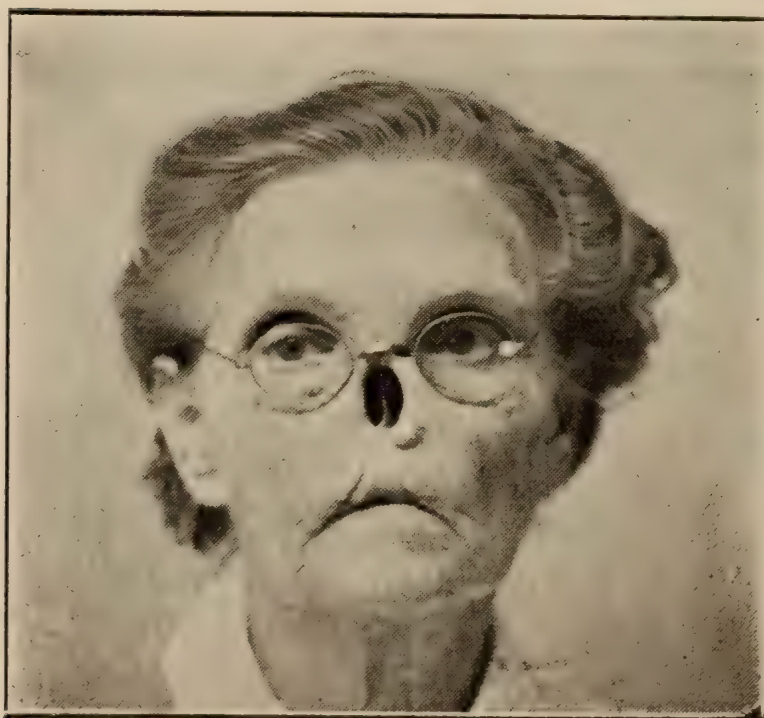


Fig. 2. Showing case after treatment.



Fig. 3. Showing Case 6 at the beginning of treatment.
First treatment Jan. 5, 1915.



Fig. 4. Tumor sloughed away. Photograph taken twelve days after
Fig. 1, Jan. 17, 1915.



Fig. 5. Photograph taken May 27th.

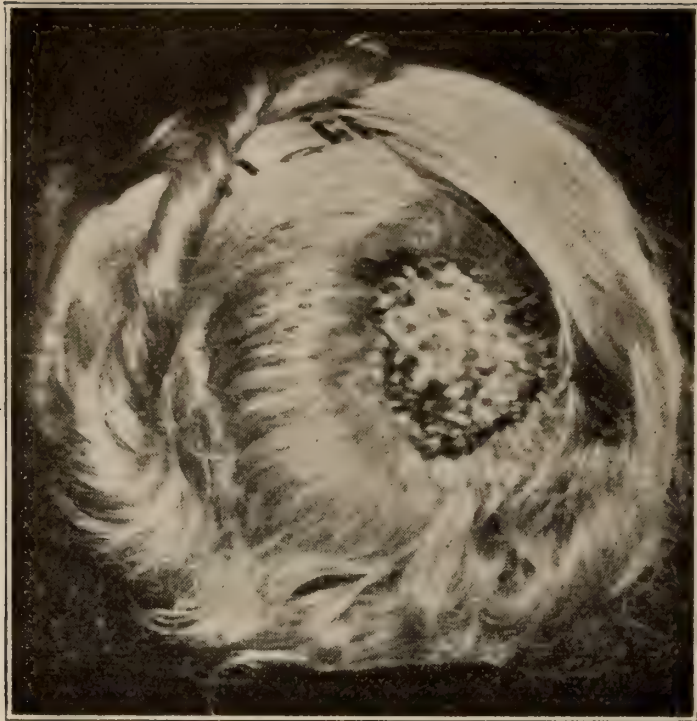


Fig. 6. Case 2. Before treatment.



Fig. 7. Case 2. The result.

A Passing Race, J. G. B. Bulloch, Washington, Western Med. Times, Nov. This is a plea for the saving of the old American stock, from its present tendency to die out as the result of 1. Intellectual Overdevelopment, 2. Over Strenuosity, 3. Sexual Disease, 4. Diversion of the Mind, 5. Decline of the Religious Spirit, 6. Climatic Influences.

The sole complimentary reason for the decline of the un-

hyphenated American is retracted, in the statement that some of the old families have maintained their prestige. In exactly the same spirit that we would protest against an aspersion against Jews, German-Americans or any other part of our composite population, we wish to enter a plea against this sort of article which recurs every year or two, in one form or another, in sociologic and medical literature. First of all, the colonial Americans do not constitute a race. They are not entirely or even mainly English or even British, as war disputants—though not Dr. Bulloch—assume. All four of the British nationalities were represented in considerable numbers in the early migration to America, as well as at least five continental nations. The Jews have recently celebrated the 250th anniversary of the arrival of the first of their race on American soil and individuals from many other races were early present. Quite aside from the fact that European nationality by no means implies a distinct racial development, practically all colonial Americans are of mixed blood so far as these nationalities are concerned, whereas the more recent migrants have often, perhaps usually, preserved a single national strain down to the present generation. The English themselves are a very much mixed race and have had a considerable immigration, of peaceable nature, subsequent to the last conquest by the Normans. Even if the colonial Americans had been entirely British, they would have represented four quite distinct nationalities, the Irish, Scotch and Welch fairly established racially, the English composed of at least five different strains, politically significant additions to the melting pot having ceased just twice as far back from the beginning of colonization of "New England" as the latter is from the present.

But call the colonials a race or not, they are not passing. Almost any of the last six or seven decades has deposited in America from one to three times the total population reached by the colonial Americans at the time of the organization of the country after the Revolution. In spite of this, the latter still amount to just about half of the present population. About the maximum human prolificity is a multiplication by three for a generation—that is to say, an average of 12 children, half girls and half boys, half of the latter surviving childhood and adolescence, according to conditions present up to a comparatively few years ago. We know of one family whose male, adult members five generations from the original immigrant numbered within a very few of 243, which is the fifth power of 3. This family, in spite of division of political sentiment, furnished over 60 men for the continental army and over 300 for the Civil War. Another family, whose progenitors came over slightly earlier, indeed on the Mayflower,

had 298 men in the Revolution. A descendent was unable to secure membership in the Sons of the Revolution on account of an abundance of riches. Some 20 men of the exact name as his great grandfather were on the Revolutionary rolls and it was impossible to demonstrate just which one of these was the particular ancestor sought. There are literally, hundreds of different family surnames, each representing descent from a single colonial immigrant or from two or more brothers, and each now enrolling 1000 or more descendants, listed by name. No people can hold its rank proportionately by the tedious process of child bearing—at the standard rate of 3.5% per annum—and child rearing—at the standard rate of 20 to 25% mortality before maturity is reached—against the importation of a foreign ingredient varying from 1 to 4% per annum and itself equally capable of reproduction. But the colonial American is not “passing,” any more than the American Indian whose numbers are, at present, as great for New York State as in the seventeenth century and whose numbers for the whole country or the whole continent are probably as great as at Columbus’s first visit. On the contrary, the colonial American is multiplying at the normal rate for any established people though undoubtedly not as fast as he did in the pioneer period nor as fast as introduced stock multiplies in the corresponding period following transplantation to a fresh soil.

Mineral Oil in Peptic Ulcer. K. M. Ferguson, Va. Med. Semi-monthly, Sept. 8, 1916, quoted in Critic and Guide, Jan., mentions this as a new treatment, the action being largely to favor the elimination of toxins by the laxative effect. The editor began to use mineral oil for gastro-intestinal ulcerations about 1897 and has, since then, employed it with bismuth, etc., almost as a routine. The idea is, therefore, by no means new. In addition to the eliminant action, that of local protection must also be considered. This treatment, however, is somewhat contraindicated in acute peptic ulcer, though rather by apprehension of the possible effects of introducing any medicament into the stomach, than as a matter of experience. It is especially indicated in various other forms of ulcer, degenerative, etc.

Death of Sword Swallower. Weinert, Munch. Med. Woch., reports the case of a soldier who resumed his practice after the healing of a bullet wound of the thorax, fatal haemoptysis resulting. It appeared that in the process of cicatrization, the oesophagus was displaced so that the sword penetarted the aorta, at a point wheer resistance was encountered.

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Number 8

ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Determination of the CO₂ Tension of the Alveolar Air and the H-ion Concentration of the Blood and Urine.

By LA RUE COLGROVE, M. D., Elmira, N. Y.

The methods are frequently the only means available to the physician for acquiring information of vital importance giving him an accurate picture of the reaction of the blood, which is so essential in those pathological conditions which are clinically recognized as acidosis or acid intoxication. Recent studies have revealed the fact that acidosis, apart from diabetes, may exist in many conditions previously unsuspected.

Henderson and Palmer in their studies on acidosis suggest that acidosis may be assumed to exist when there is no diminution in the acidity of the urine after the administration of an alkali equivalent to a litre of a deci-normal solution. In other words the urine of a normal person should become alkaline after the ingestion of 8 grams of Bicarbonate of Soda. This also serves as a guide to the indication for alkali therapy. If the urine shows a diminished acidity after the ingestion of 4 grams of Bicarbonate of Soda alkalies are not indicated.

Many unexplained and sudden deaths have occurred especially following operations in which neither the disease nor the operation itself were held responsible, and such factors as hemorrhage, shock, infection, pneumonia, having been excluded, may have been due to acidosis. What is acidosis? Physiology teaches us that the normal reaction of the blood is slightly on the alkaline side of neutrality. It is very constant in its reaction varying but slightly in health or disease and any variation in its reaction in disease is always toward

acidity. Any appreciable change toward that end is incompatible with life and death speedily ensues.

We remember from our Physico-Chemistry that the reaction of any fluid depended upon the amount of potential H-ions and Oh-ions which it contains. Pure water being used as the base of neutrality contains equal numbers of H and Oh-ions. Hence a solution of acid reaction must contain more H-ions than water and be in excess of the Oh-ions.

The acidity of a solution or the numbers of H-ions which it contains is spoken of as the H-ion concentration. The H-ion concentration of the blood is very constant varying within narrow margin in health or disease. When it is increased, or what is the same thing if the alkali reserve is diminished, we have then a condition known as acidosis.

What then is the normal H-ion concentration of the blood and what means have we of determining it? A normal acid is one having a gram of potential H to a liter of water.

Diluting a normal acid 10 times we have naturally a decinormal acid, continuing the dilution 7 decimal points, we have a solution containing 1-10,000,000 grams of H to a liter which is identical to the amount contained in water which as we know is the base for neutrality. Instead of writing the large number the log arithmic notation of the number is used leaving out the minus sign as suggested by Sörensen. Hence the H-ion concentration of water is Ph-7.

It will be observed the smaller the number the greater the acidity, and as the normal reaction of the blood is on the alkaline side of neutrality its H-ion concentration varies between Ph-7 and Ph-8. Its neutral point 7 being reached only in severe acidosis and Ph-8 after giving an unusual amount of alkalies.

Now while the means for determining it are simple, they are beset with difficulties which render their application at the bed side rather impractical.

We have, however, an indirect means of ascertaining the acidity of the blood, which is extremely simple, accurate, requiring only 2 or 3 minutes time, with no discomfort to the patient and readily carried out at the bed side.

"The Determination of the Co-2 tension of the Alveolar air." By its determination we can judge the degree of acidosis present, it enables us to foresee an impending coma and gives us accurate information as to indication of alkali therapy.

The mechanism by which this slightly alkaline reaction of the blood, so essential for the maintenance of life, is maintained, is one of the most wonderful provisions of nature.

Just consider that every metabolic process of the body,

pours into the blood stream acid by-products. Crile and others have shown that every action of the body, emotion, fright, exercise, infection, anaesthesia, surgical operation, trauma results in the formation of acid by-products, in fact the process of life itself is an acid forming one. A steady pouring of acid by-products into the circulation. What is the mechanism by which this excessive acidity is neutralized and the alkaline reserve of the blood maintained at such constancy? The explanation of this is, first, in the composition of the blood itself. The alkali reserve of the blood is due to Bicarbonate of Soda, mono-soda phosphate di soda phosphate and proteids. A solution containing these chemicals will retain its same alkalinity after the addition of considerable acids, although the balance between the two salts will be altered. The chief provision for the acid-base equilibrium is the excretory function of the kidney and lung. The non-volatile acids combine with the base in the blood and are excreted by the kidney as harmless salts, while the volatile acid as Co-2 is excreted by the lungs. If owing to some disturbance in metabolism acids are produced faster than they are excreted or if the excretory organs are impaired, the alkali reserve of the blood being limited, there will naturally result a disturbance of the normal acid-base equilibrium, with the resulting acidosis. Here we see another of nature's phenomena. The action of the kidney in separating an acid urine from an alkaline blood, leaving the base for further acid neutralization.

Recent studies on the physiology of respiration have shown that the stimulation was not due to the lack of O in the tissues as believed by the old physiologist, nor as maintained as recently as 1905 by Haldane and Priestly, that the specific stimulation of the respiratory center in the medulla was due to Co-2. This conception has been recently broadened by two Danish Physiologists, Wiesterstein and Hasselbalch, that Co-2 stimulates the respiratory center simply because it is an acid, that any other acid would have the same effect. Respiration then depends upon the H-ion concentration of the blood, as the reaction leans toward acidity, we have an increase stimulation of the respiratory center as evidenced by an increased pulmonary ventilation frequency in respiration and pulse dilatation of the nostrils, etc. Efforts on the part of the organism to maintain the normal reaction of the blood, by lowering its Co-2 tension compensatory for the increase non-volatile acids, which leaves the blood by a slower route, via kidneys. This explains the increased respiration pulse and thirst after violent exercise. As all muscular action results in the formation of acid by-products. Hence we see

that respiration and reaction of the blood are interdependent.

The measure of the CO_2 tension of the Alveolar air, which is identical to that of the blood is an index to the degree of acidosis. As the non-volatile acids increases the CO_2 tension diminishes and as acidosis is due to the presence of non-volatile acids the measurement of the amount of CO_2 in the blood or Alveolar air gives us the degree of acidosis. The variation of the CO_2 tension of the blood, is an attempt on the part of the organism to maintain the normal constant reaction of the blood.

Crile has shown that anesthesia is an acid forming process and that the stage of unconsciousness is due to increased acidity. In nitrous Oxide anaesthesia the acidity is more rapid and as we know anaesthesia is more quickly obtained.

During my recent service at the A. O. Hospital all patients coming to the operating table, other than emergency cases, were given preliminary treatment of Bicarbonate of Soda, fruits especially the Citrus fruits and forced Carbohydrate feeding. Instead of the usual enema the morning of the operation, an enema containing 1 oz. of Bicarbonate of Soda to a quart of water was given. It not only cleansed but some of the soda was retained and absorbed. The urine was invariably alkaline at the beginning of the anaesthesia. In every instance immediately after the operation its reaction would be acid, showing that anaesthesia, surgical attack and nervous strain are acid producing factors.

If this simple preparatory treatment of Carbohydrate feeding and alkali therapy is given prospective surgical patients, many of the annoying post-operative symptoms may be avoided, as vomiting, gas, pain, distension, etc., all an expression of an acid intoxication. Experience has taught us that patients suffering from Ca or ulcer of the stomach, or any condition in which the nutrition is poor, are bad surgical risk. The lessened food intake has already produced a diminished alkali reserve and adding to this the increase acidity resulting from the operation, we may have a H-ion concentration so high that the neutralizing mechanism of the organism is unable to re-establish the normal alkalinity of the blood and death results from acidosis. The post operative treatment is no less important. An early attempt should be made to give alkalis and sugar. The early feeding of gruel, orange and grape-fruit juices, fruit ices are well borne and shorten the hour of pain, vomiting, etc. Morphine given before the operation does not add to the acidosis, but it should be withheld after the operation if possible as it inhibits the neutralizing mechanism.

Many bad surgical risks can be made a fairly good one by

increasing the alkali reserve of the body before operating by carbohydrate feeding and alkali therapy.

That acid intoxication plays an important role in infectious diseases there can be no doubt. In these cases the patients are too sick to eat, an inadequate food intake or the food may be too low in carbohydrate. Hence the rational high caloric feeding in such protracted diseases as typhoid fever.

Fishier in his new work on Oedema and Nephritis has shown the intimate connection between acidosis and Oedema. He explains the reason why alkalies have always been so beneficial in this condition, maintaining that the water in our bodies is held in combination with colloids, analogous by the absorption of water by gelatine which is greatly increased by the addition of a little acid. In Oedema the increased retained acids have caused the tissues to absorb more water.

As the swelling of gelatine can be reduced by adding alkalies or salts so is Oedema reduced by the giving of alkalies and Sulphate of Magnesia.

In pregnancy the symptoms of acid intoxication varies from a mere morning sickness to those alarming ones of pernicious vomiting, headache, convulsions and coma. That this is an acid intoxication is evidenced by the excretion of a highly acid urine with much ammonia and lowered CO_2 tension of the Alveolar air. The diminished alkali reserve as a result of nausea and vomiting added to the acid intoxication resulting from the pregnancy itself, gives us an indication for vigorous alkali treatment with carbohydrate feeding. If the stomach is unable to retain such treatment, they should be given per rectum or intervenously. As prevention is the watch word in medicine, serious complication in pregnancy may be prevented by giving alkalies sufficient to maintain a neutral reaction of the urine to methyl red.

We all know from practical experience that in certain diseases as diabetes, nephritis, acute inflammatory rheumatism that a large amount of alkali is necessary to render the urine alkaline and that the patients are always relieved by its administration. This increase "Alkali tolerance" as Sellards terms it is due to the fact that owing to the acidosis present, with the consequent depletion of Sodium Bicarbonate in the tissue, a large amount of the Alkali must first be used to restore the depleted cells before it neutralizes the acid in the blood.

In diabetes, the disease in which acidosis plays the most important role, we have as the result of faulty metabolism an incomplete oxidation of fats into acetone bodies as acetoacetic acid acetone beta oxybutyric acid, etc.

The patient a victim of acid intoxication an increase of

non-volatile acids in the blood. While the examination of the urine informs us as to the kind and amount of acids excreted from the body, it gives us no information as to the retained acids within the body which is the most important to know.

The Ferric Chloride test even in approaching diabetic coma may be very weak and on the other hand when the patient is comparatively normal, its reaction may be very strong making it an unreliable test as to the patient's real condition.

We have at our command, however, by the "Determination of the Co-2 tension of the Alveolar air" a method which gives us an accurate picture of the condition which prevails in the blood and enables us to judge the severity and course of the disease. A constantly falling Co-2 tension is a serious warning and of great prognostic value.

Poulton who has given considerable study to the prognostic value of the Co-2 tension, says that values between 30 and 35 M M may be taken as representing considerable acidosis and demanding treatment but there is no immediate dangers to be feared. Values between 30 and 20 are, however, of much more significance and indicate that the patient is nearing the border line. If the tension falls to 20 or lower the patient has reached a point in which coma may be expected at any moment and requires drastic treatment. Observations made at the Peter Bent Brigham Hospital on patients in diabetic coma showed that the Co-2 tension varied between 6 and 10 M. M., which means that the expired air contained only about 1% of Co-2 as compared to 5% normal and 40 M. M. pressure.

The easiest method of determining the Co-2 tension of the Alveolar air is the one suggested by Plesch as modified by Higgins. It comprises first the collection of the expired air and secondly its analysis.

It is based upon the principle that if a patient breathes into and out of a closed space as a rubber bag holding approximately 1000 C. C. for a period of time, not exceeding the time required for one complete cycle of the circulation or 40 seconds, that the diffusion of gases will be the same as the air in the lungs, which represents the same Co-2 tension as the blood. The normal tension with the patient at rest varies from 40 to 45 M. M.

The respirations must not be too rapid or shallow otherwise we would have too low an estimate. If continued longer than the time required for one cycle of the circulation it would give us an estimate too high. Experience has shown that if one will take 4 or 5 deep and slow respirations that

the result obtained will be uniformly accurate, varying not more than 2 or 3 M. M. A variance which for clinical purposes may be disregarded.

The analysis of the collected air is extremely simple and depends upon the fact, that if the air from the bag is passed through a solution of bicarbonate of soda containing an indicator until the solution is saturated, or until no further change or color takes place the reaction of that solution will depend upon the relative amount of Bicarbonate of Soda or Co-2 present. The color thus obtained is matched with a standard phosphate solution containing the same indicator. A certain color indicating a certain reaction.

These Standard Phosphate tubes are prepared in the following manner, mixtures of Co-2 of varying percentages were analyzed by the usual gas analysis apparatus and the percentage of Co-2 found multiplied by the barometric pressure gives the Co-2 tension in M. M. These different gas mixtures of known per cent were then blown through a bicarbonate indicator solution and the resultant color matched by phosphate mixtures containing the same indicator. These solutions are so prepared as to give accurate results when the determination is carried out at a temperature between 68 and 77 F.

In conclusion, the determination of the Co-2 tension of Alveolar air gives us a simple clinical test for the detection of acidosis, a condition which exists in a great variety of pathological cases.

Secondly: It has great prognostic value, enabling us to foresee and perhaps forestall an impending coma.

And thirdly: It gives us a rational use and control of alkali therapy.

Syphilis Inherited From Paternal Great Grandfather.

Gaucher, Bull. de l'Acad. de Med., Sept. 26, 1916, reports three infants, one backward, almost idiotic; one with projecting median superior incisors, deep palatine vault, scoliotic, and with adenoids; a third with entero-colitis and adenoids. All three were breast-fed. The serum reaction was positive in the children and the father, negative in the mother. The father was a virgin when married (note that the French language has a masculine word for this meaning), is now 39 years old and presents no sign of acquired syphilis. His father dubious (or the word may have the literal meaning of squint-eyed), no acquired syphilis, dead of cerebral-haemorrhage. Great grandfather died young, paraplegic (syphilitic).

**Address of the President of the Medical Society of the
County of Erie, Dec. 18, 1916.**

DR. FRANKLIN W. BARROWS, Buffalo.

The experiences of one year as president of the County Medical Society have convinced the speaker that he is just beginning to learn the possibilities of the office. It is only natural for him to fancy that if he could serve the society another year he would be able to avoid some mistakes and to perform his duties more efficiently. But custom very wisely limits the presidency to one term and relegates the retiring officer to the ranks. All his ambitions for the future of the society become the common property of the membership. As a past president he will always have a keener interest than ever before in the affairs of the society and a larger conception of the dignity and power of the organization. The speaker acknowledges his hearty appreciation of the support that he always received from the officers and members of the society. The gratifying growth of our membership and the large attendance at our meetings have given evidence of the loyalty of the medical profession to the one organization that is most vitally concerned with their professional and economic welfare. Your enthusiastic reception of the president of our state society and his associates at our last meeting was most encouraging to them and highly creditable to yourselves. For all these expressions of your fraternity and your interest in the ideals of our state and county organizations I thank you once again.

It is a pleasure to report that your Council has been faithful to its duties and that its meetings have been marked by a spirit of unity and keen interest in the objects of the society. Our thanks are due to them individually and as a body for their sacrifice of time and their thoughtful transaction of the business committed to them. In view of the responsible duties to the Council your president would recommend that our by-laws be so amended that the retiring president shall become a member of the council during the term of office of his successor, this rule to become effective one year from today.

Your president regrets that during the past year the members of our society residing outside of Buffalo have had little or no part in our meetings although they are as much members as the rest of us and have contributed their part to our support. He would respectfully recommend that next year we hold one of our meetings outside of the city and promote the good fellowship that ought to be as wide as the county.

Following the suggestions of President Tinker, of the State

Society, the Council undertook a canvass of the candidates for the State Senate and Assembly just before our last election, in order to ascertain their standing on matters of vital interest to the medical profession. Unfortunately this canvass was begun but a few days before election and the number of responses was too small to be of service to our members on election day. Your president would strongly recommend that hereafter at the beginning of every state campaign the candidates for Senate and Assembly be asked to give their pledges in support of the legislative measures on matters of public health which commend themselves to the members of our society, and that our members be fully informed on the standing of every candidate before election.

Within the past decade we have all noted an enormous development of public health activities all over the United States. At the same time legislation in many of our states has undertaken to regulate workmen's compensation, and more ambitious plans are openly debated which, in time, bid fair to socialize the practice of medicine as has been done to so great an extent in some other countries. It behooves the medical profession to be on the alert. Changes are bound to occur within a short time which may affect very vitally the relations of the physician to the public. If the profession as a whole is not ready to take a hand in these revolutionary enactments, the legislatures will impose laws upon them which may not be to their liking. It should be the duty of every organization of physicians to study carefully the tendencies along right lines. To this end your president would recommend that some action be taken by this society looking toward the education of our members on these questions in order that we may all be prepared to maintain that position that will be most advantageous to the profession and to the health of those for whom the profession is responsible.

Follow Dr. Tinker's advice, and give the younger members of our society some definite part to perform which will make them feel a greater responsibility for the progress of the profession.

Bacteriaemias in the Agonal Period. J. W. Fredette, Pittsburg, Jour. of Lab. & Clin. Med., Dec. 1916. In 119 cases, 42 showed positive cultures, 31 of a single, 11 of 2 organisms. The latter are: streptococcus salivarius, pneumococcus, streptococcus pyogenes, staphylococcus pyogenes, aureus, B. typhosus, streptococcus viridans, streptococcus mitis, B. acidilactici, streptococcus anginosus, streptococcus mucosus, staphylococcus albus, streptococcus haemolyticus, streptococcus infrequens.

The Atlantic Areas and the Eastern Mississippi Area.

DR. FELIX VON OEFELE, New York.

The central ridge of the four areas mentioned is a mountain chain of crystalline rocks since palaeozoic era. It is somewhat irregular in the northern as well as in the southern part. The declines of the ridge are ribbons of younger deposits.

The Canadian Shield of azoic crystalline rocks and the eastern part of the central ridge mentioned contain rocks exposed for long periods to atmospheric waters of the surface and strongly extracted; or where the appearance on the surface of earth is due to glacial influence, it was exposed to many extractions previous. The eastern mountain decline descends quickly to the seashore. It is exhausted by the circulating water of all the geological periods. The conditions were always unfavorable for large deposits of rock salt or strata of other easily soluble material. For this reason, the springs of the three Atlantic areas are commonly low mineralized. Charleston Artesian Well, South Carolina, as a tepid sodium chloride water of second area and Lube Spring, Maine, as a brine in the third area are exceptions.

The volcanic action has stopped since the middle of mesozoic time, in the areas mentioned.

The mesozoic volcanic action made intrusions through the three Atlantic areas. The respective districts yield many waters claimed as mineral medicinal waters and bottled as table waters. But no water of these districts is tepid or really thermal. This seems astonishing.

The older precambrian volcanic action was much stronger. Its intrusions are much larger and its districts still yield few springs of higher temperature. The tepid temperature of the springs of Tahonic Mountains of the third area and the tepid carbonated springs of Charleston, South Carolina, mentioned appear in younger rocks, but seem to originate from covered precambrian intrusions. The Eastern Mississippi area shows many springs of higher temperature originating directly from these precambrian intrusions.

The vicinity of New York city shows specimens of three kinds of intrusions. The serpentine hills of Staten Island correspond to the older precambrian intrusions. The Watchung Mountains of New Jersey contain mesozoic intrusions. The Palisades are of intermediary age.

During the geological periods, the northern parts of the Atlantic areas show the ocean progressing into the continent. There the kaenozoic, mesozoic and younger palaeozoic strata

are lost. This is the New England area. There the oceanic decline is built by rocks of old geological age. It is not always clear which of these rock springs are stratum springs and which are fault springs. We will speak of the silicated springs as stratum springs and of the nitrated ones as fault springs. As a rule all the waters of the New England area are strongly submineralized. Mineral springs of the two other Atlantic areas are somewhat higher mineralized.

The entire waters of the combined Atlantic areas are ordinarily below the average of total mineralization of good drinking waters of European standard. There is no occurrence of calcium sulfate springs, sodium chloride springs with the two mentioned exceptions nor especially of sulphide springs which are very frequent in the Eastern Mississippi area including the upper part of New York State.

The Atlantic areas had emerged in a long geological period from sea bottom, and part of them at different times again submerged and reemerged. The combined Adirondack and Appalachian system of palaeozoic time was a broad island of very high mountains in the north and became narrow in the south. The marine deposits of strata east of this island form the three Atlantic areas.

I. THE MIDDLE ATLANTIC AREA.

In the Middle Atlantic Area, the palaeozoic Appalachian island has had the seashore to the east may be within the eastern plains of the present continent or further to the east in the ocean of today. In the proterozoic period there was a strong volcanic action in New Jersey and neighborhood up to New England and down to the southern Appalachians. The seashore of the geological Appalachian island supposed, in the west gradually spread in the direction to the Mississippi. In the east the island submerged by and by to such a degree that at the end of the palaeozoic period almost the entire State of New Jersey with the exception of a small district was under water. With the beginning of the middle mesozoic period, a new area of volcanic action took place and gradually the eastern seashore had emerged to the extent we find it now. After the middle part of mesozoic time, the volcanic action stopped forever in the east. A similar development, but less regular happened north and south of New Jersey with the above mentioned modification.

The Middle Atlantic area includes Long Island, Manhattan and Staten Island, N. Y., New Jersey, Delaware, a small eastern half of Maryland, District of Columbia, the plains of Virginia and the northern plains of North Carolina.

The Middle Atlantic area must be subdivided into 1) the Pleistokaenic district of marine deposits, 2) the Meiokaenic

and moraines district, 3) the isolated Oligokaenic springs of Long Island, 4) the Cretaceous district, 5) the old mesozoic district and 6) the Palaeozoic district.

The end of the palaeozoic period may be called the centurial high tide, the water covering nearly the entire State of New Jersey, while with the beginning of the mesozoic period a new low tide started.

If we include with the State of New Jersey a small southeastern part of the State of Pennsylvania, there is the most regular deposit from azoic to recent periods represented from the summit of the Appalachian system to the seashore. New England shows in the north only the older kind of palaeozoic deposits and the states south of Carolina show only the more recent kaenozoic deposits.

The districts of the Middle Atlantic area are almost regular strips of all geological ages. They show stratified marine deposits on the front of the old rocks with an original decline like the Andes to the Pacific Ocean. Three old periods of parallel volcanic intrusions and a following gigantic outlet of the prehistoric Hudson glacier, a spur of the inland ice cover, separated the Middle Atlantic area from New England. No thermal or tepid spring still exists from the intrusions of the Middle Atlantic area.

The State of New Jersey has only a total area of 7815 square miles. The northwestern part is furrowed here and there, by ridges of the eastern decline of the Appalachian Mountain system. The remainder is low situated land falling in an eastwardly direction toward the seashore. The southern half, particularly that portion south of Trenton contains only very low hills and even land. The same condition prevails in the remaining part of the Middle Atlantic area south of New Jersey. According to the surface strata, the entire State of New Jersey may be divided and subdivided into ribbon like strips, running northeast to southwest, of different geological character.

The geological map of the state geologist, Henry B. Kuemmel, and the topographer, C. C. Vermeule is edited under the direction of the Geological Survey of New Jersey. The palaeozoic district of New Jersey has an area of 1546 square miles, the triassic district an area of 1779, the cretaceous district an area of 970, the meiokaenic district an area of 3086, the pleistokaenic district an area of only 45 and the swamps and morasses between the meiokaenic and pleistokaenic district are extended over an area of 388 square miles. These different districts have very many subdivisions consisting of rocks and soils which vary considerably, giving to the waters which course through them, quite a range of

properties. But the general character persists through the single districts.

But usually all the waters of these districts claimed as medicinal waters, are below the mineralization of European average drinking water. The field of meiokaenic marl deposits yields highly mineralized waters, but objectionable by reason of the dissolved constituents contained. These highly mineralized marl waters can not be claimed as medicinal or mineral waters. That is the reason, why we will learn of no mineral waters from the largest i.e. the meiokaenic district of State of New Jersey.

AREA I. District 1.

From Long Island, N. Y., to the northern plains of North Carolina, there is a continuous ribbon of kaenozoic deposits. Similar conditions prevail again in the southern states down to Florida. But the kaenozoic deposits are interrupted between North and South Carolina.

The pleistokaenic deposits consist of marine sands. Since these sand strata are exhausted by marine influences, their springs contain a very low amount of total solids and are very pure and clear. The small islands east of Long Island and the field of Cape Cod itself partly show this formation. But there is no claimed mineral spring.

A small ribbon of pleistokaenic sand extends from Sandy Hook, N. J., to Cape Hatteras, N. C. North the sea made no estuarine deposits or they are covered by glacial drifts. Only the New Jersey coast shows deposits of estuarine pleistokaenic sands. This is a field of desirable very low mineralized surface springs.

The pleistokaenic or quaternary marine deposits of New Jersey have a total area of 45 square miles. These deposits running parallel to the coast of New Jersey and comprising parts of the mainland, are approximately 120 miles long, varying in width, being 1 to $1\frac{1}{2}$ miles at its widest part. This includes part of Monmouth, Ocean, Atlantic, and Cape May Counties from Sandy Hook in the extreme northeastern part of New Jersey to Cape May, the furthest southern point of the state.

The quaternary deposits composed chiefly of glacial deposits and waste which were brought down to the shores from the continent by the glaciers and rivers are not included in this district. We are concerned chiefly with the beach sand and gravel, washed up by the sea, including dunes and dune sand along the coast, which is not, always sharply distinguished from Cape May formation.

This beach sand which is being continually thrown out by the ocean, is silicon dioxyde in a very pure state. Time and

the sea water have had their effect upon the sand and the result is that the sand is free from almost all mineral salts except a small amount of arduously soluble lime salts which are there due to the presence of shells, etc. Some places are richer in lime salts, some almost free, depending upon the neighboring banks within the sea. The waters of the springs, as they bubble up through the sand, are mixed with air or aerated and as almost all salts in the sand are already gone they dissolve but a minute portion of mineral matter.

All the waters of this formation are similar to a certain extent. I took for examination a specimen of drinking water from a well at Trotters, near Brielle, New Jersey. The well is located in a deep stratum of pleistokaenic sand, the water being raised by a pump. Upon a preliminary analysis I found the following data: total solids 0.01085%, loss by ignition 0.00223% and Calcium oxyde 0.00223%. These are figures of akratopege.

Different mineral springs are alleged to be in this district of New Jersey and carrying on active business with the consuming public, i.e. the sale of bottled waters.

Upon reference to the 37th Annual Report of State Board of Health of State of New Jersey, 1913, pg. 448, table 79, there were three springs of the Pleistokaenic district selling bottled water, namely, Cold Indian Spring at Asbury Park, Indian Lady Hill Spring at Asbury Park and Indian Spring at Rockaway.

Indian Lady Hill Spring 0.0056% t. s.

Cold Indian Spring 0.0062% t. s.

Delaware contains the same geological condition as eastern New Jersey; but it does not claim to contain mineral springs. In 1911 one spring reported actual sale.

The State of Virginia is principally divided by meridian 77° 30' into an eastern kaenozoic and a western proterozoic district of deposits. The kaenozoic part of Virginia contains very few claimed mineral springs.

North Carolina contains no claimed pleistokaenic mineral spring.

AREA I. District 2.

The waters of the Moraine deposits and of meiokaenic strata are more highly mineralized. The pleistokaenic deposit of Long Island borders on the upper Cretaceous deposit. Meiokaenic deposit is not known north of New Jersey and east of the eastern mountains. A broad strip of Meiokaenic deposit occupies quite an extensive district of 3087 square miles of the State of New Jersey. This strip is continuous to the south through the middle and southern Atlantic areas. The soil of this strip of New Jersey is covered chiefly by

moraines and glacial drift and is quite rich in soluble minerals. Nevertheless it boasts of but two claimed mineral springs, the Cold Springs at Brown Mills and the Artesian Well at Winslow.

Of these which are called Meiokaenic deposits, there are various sedimentary Rocks, partly of marine origin, partly river deposits, partly glacial drift. Some may be really Pleiokaenic, some Meiokaenic, some really Eokaenic. The marl character or the marl admixture of these deposits spoils the properties of the water. The absence of acknowledged springs serves but to emphasize the fact that the Meiokaenic strip of New Jersey with its 3087 square miles has little or no mineral water of any therapeutic value.

Upon correspondence with the above, I received a reply from the Cold Springs, but none from the Artesian Well. Because of its high mineralization, the waters are not beneficial as a drinking water, for, instead of acting as a diluent or flusher, they do just the opposite. The Meiokaenic deposits of New Jersey give undesirable properties to the water. As for the Artesian Well, it is fair to presume that since I received no answer to my letter, and since I could find no evidence of there being any water by this name on the market, that the spring has not been in existence for some time. The Bulletin of New Jersey State Board of Health erred therefore in mentioning it as one whose waters are being sold on the market. This is sufficient evidence that this large Meiokaenic district does not contain a spring able to continue the claims of a mineral spring for even a decade.

Mardela Springs is a spring of Maryland Ocean plains of Meiokaenic district. Virginia is not yet clear. North Carolina contains the meiokaenic springs: Indian Spring, Albutton Mneral Spring and Cowhead Spring.

AREA I, District 3, oligokaen.

The conditions were the same in old periods northeast of New Jersey up to Cape Cod. But the eruptive time of the serpentine rocks of Staten Island, then of the Palisades, then of the Watchung Mountains, then of the Hudson glacier and the absence of recent estuarine dunes destroyed the similarity to the conditions of New Jersey.

Long Island with a few other small islands is the only residue corresponding to the stratified ribbons of New Jersey and more south. The northwestern quarter of Long Island is a cretaceous formation. The rest is pleistokaenic formation belonging to the second district. The principal part is a southern and a northern long row of end moraines of the pleistokaenic Hudson glacier. Where this glacial drift does not cover exceptionally older kaenozoic hills, they consist

of a very pure quartz sand. The glacial drift does not contain waters desirable for medicinal use. The moraines yield average mineralized waters of undesirable chemical constitution belonging to the second district. The boundary of Nassau County and Suffolk County shows an uncovered ridge of oligokaenic sands with some Akratopeges.

Momone Spring and Colonial Spring at Wayandanch were used as medicinal springs by the old Indians of Algonquin tribes and until half a century ago then too by the settlers. Wrong cultivation increased the amount of mosquitoes and kept the visitors away. Oyster Bay Spring Water from the neighborhood of Oyster Bay is on the market as table water. These three are very low mineralized springs in Suffolk County, N. Y.

The waters of the moraine deposits are more highly mineralized.

A well of Ozone Park at Woodhaven, L. I., 0.0162% total solids.

A rejected plant well at Brooklyn Hills, L. I., 0.0436% total solids. Earthy salts prevailed in both samples. Both these wells are a few hundred yards distant and show the difference of soluble contents within the glacial moraine hills. They claim no medicinal spring.

AREA I, District 4.

A small ribbon of Cretaceous district is known in the northwestern part of Long Island. A more or less continuous strip of Cretaceous deposit extends from New Jersey to South Carolina.

The cretaceous district of New Jersey is a long narrow ribbon-like strip of land running in a northeasterly to southwesterly direction. The four corners are New Brunswick, Monmouth Beach, Kelley Point and Salem. From Trenton to southwest, the boundary line is the Delaware River running there in a geological fault. This cretaceous district of New Jersey contains 970 square miles or about 1/8 of the total state. This cretaceous district is fairly well populated. It includes Camden, the main part of Trenton and New Brunswick.

In the records of Washington and New Jersey and in other publications, at different times we find the names of springs which purport to be good for medicinal and drinking purposes. It was possible to collect the following springs of the Cretaceous district of New Jersey, which have at one time or another been claimed to be mineral springs: Arctic Spring Water at Trenton Junction, Gray Rock Well at Ewingville, J. S. Hart Natural Spring at Lawrenceville, Sanhican Spring at Trenton Junction, Wm. S. Potter Well at Hamilton Town-

ship, Salem-Art-dist-pure Water of H. A. Frye Co. at Gloucester and Kalium Spring Water at Collingwood.

I have tried to obtain information from the proprietors of these springs regarding their qualities, etc. A letter addressed to the Crystal Spring Water Co. was returned as unknown, and Potters Well was unheard of by the New Brunswick Board of Trade. The Arctic Spring Water could not be located. Satisfactory answers were received from J. S. Hart, A. B. Vernam and Wm. Lawver. Not one of these springs could supply me a chemical analysis of their water and from the Sanhican Spring only I received a copy of a very incomplete sanitary analysis. Chlorine was stated present 0.0004%, Nitrogen as Ammonia 0.0000018%, Nitrogen as Nitrates 0.0002% and Oxygen is consumed by permanganate in solution 0.0000054%.

Upon special request I obtained samples of water and made such tests as would enable me to classify these waters in a general sense. The Sanhican Spring showed: 0.0082% total solids, 0.0069% mineral matter, 0.0013% disappeared in red heat and 0.0041% Calcium Oxyde. Magnesium Oxyde was found present in traces.

An analysis of a sample of Echo Spring Water Co. at Ewingville shows 9.0084% total solids, .80024% mineral matter, 0.0080% disappeared on heating and 0.0012% Calcium Oxyde. It can be learned that this spring yields a relatively higher amount of organic matter. But the ash of Sanhican Spring is reddish colored by iron and the ash of Echo Spring shows no coloring by iron and therefore is more valuable for many technical purposes.

The water of J. Hart Spring showed 0.0093% total solids and 0.0021% calcium oxyde.

In comparing the analyses of these springs we find their mineralization very low, if we consider that a good European average drinking water contains between 0.04 to 0.05% total solids. The above springs of the cretaceous district of New Jersey contain almost 1/5 only of this average, and must be called submineralized waters of a very low mineralization. The cretaceous district offers no wonderful possibilities of spring development, but contains fairly good waters for ordinary use. But it is of vast importance to develop similar springs and mineral waters, owing to the close proximity of said district to the city of New York, Philadelphia and other large cities and suburban centres in the vicinity.

The geological conditions of this district are not suitable for high grade medicinal mineral waters; in other words they

may be correctly termed only relative mineral waters. The soil contains remarkable quantities of calcium compounds, mixed with glauconite sand and iron oxyde. Marl is also found in traces; this marl imparts a bad taste to the water.

Wm. J. Lawver of Trenton Junction has given me valuable information covering the springs of this section. He says that those springs located inland from $1/4$ to $3/8$ mile of the Delaware River are clear while those further back from the river are both poorer in quality and quantity.

This is accounted for by the water coming in contact with a stratum of soft red shell composition which shows in the analysis of the water to its disadvantage. For a stretch of four miles on the Jersey side of Delaware River the quality of the water is excellent, the land being of a rich clay loam composition intermingled with a small percentage of large grains of sand. The clay is white and pliable. The bed rock is either brown or gray stone of a very solid formation suitable for quarrying. Thus the water is cleansed of all impurities through a natural filtering process brought about when the water comes in contact with the sand and clay.

Bath's Chalybeate Spring in Bucks County, Pennsylvania, is situated in the fault between Precambrian and Lower Cretaceous. A very small southeastern part of Pennsylvania near Philadelphia contains Precambrian crystalline rocks, Cambrian deposits and Precambrian intrusions as island within Cretaceous deposits. No mineral springs are claimed there.

Baltimore and Washington show cretaceous deposits and precambrian intrusive rocks. Springs near Baltimore are: Strontian Spring, Indian Spring at Hillsdale, Magnetic Strontian Springs, Clymerara Springs, slightly distant; Bentley Springs and Windsor Sulphur Springs.

The District of Columbia contains: Berry Hill Mineral Springs, Columbia Natural Lithia Springs and Gitchie Crystal Spring (0.0022% t. s.)

Bladsburg Spa, Spa Springs, Takoma Spring and Rockville Spring are near Washington, within Maryland.

Perhaps Chase City Lithia Spring and Buffalo Springs, Mecklenburg County, belong there. This would depend upon the neighboring springs of North Carolina.

Virginia contains two small separated fields of cretaceous and triassic deposits and no palaeozoic deposits at all on the eastern decline of azoic rocks.

AREA I, District 3.

With the beginning of the middle mesozoic period called

the jurassic period the last volcanic action took place in the east of the United States and by and by the eastern seashore of New Jersey, etc., emerged in the periods explained above to the extent at which we now find it. The jurassic volcanoes were all located near the seashore of their times. The respective intrusions are proved in fields of old mesozoic deposits called triassic deposits. After the middle part of the mesozoic time, the eastern volcanic action stopped forever.

The end of the palaeozoic period may be called the centurial high tide, the water covering nearly the entire state of New Jersey and similar country, while with the beginning of the mesozoic period, new low tide started. The Cretaceous district and the above mentioned more recent districts contain strata which were deposited after volcanic action had ceased. In these districts mineral springs ascending in an old volcanic fault do not reach the surface of the earth save in exceptional cases. We learned above the exception of Charleston Artesian Well, South Carolina, as a tepid sodium chloride water of the second area reached by thrilling. The waters of later geological deposits contain on this account very little or no radioactivity. But the waters of triassic and older deposits may contain an admixture of magmatic waters and radioactivity.

The triassic deposit of New Jersey is a strip with many volcanic intrusions. A higher radioactivity is often the property of the springs of such districts. But the radioactivity is still of small importance for practical balneology. It is almost a matter for bluffing advertisers. The amount of trustworthy statements of radioactivity are insufficient. The following pages will mention the radioactive properties only exceptionally.

Taking into consideration all the spring groups of northeastern United States, we can expect in the triassic district of the first area only low mineralized springs, or springs influenced by the old volcanic action. This volcanic action has lost locally every influence to the temperature of mineral spring waters, so that no high mineralization of magmatic waters can come to the spring in existence. This mesozoic volcanic action of New Jersey is far distant from the precambrian center of the Adirondack system as well as from the central point of the Appalachian system in Virginia. Within New Jersey the volcanic influence may cause a very high dissociation or some radioactivity. As far as low mineralized springs are concerned, the best are to be expected in the triassic district of New Jersey.

The small ribbon of triassic deposit known in Massachu-

setts and Connecticut in a north to south direction and the other end down to Virginia are accompanied also by volcanic intrusions. The New Jersey triassic district overleaps into the state of New York. Cascadian Spring of Grand View, Rockland County, New York, may belong to the same group of waters of the triassic district of New Jersey.

Looking through the annual report of the Board of Health of New Jersey for the year 1913, I found that mineral waters of twenty-two springs of the triassic district were on the market for sale. On looking through other publications I could not find any additional springs than those tabulated in the Board of Health report.

The springs, of the axis of this ribbon marked from Lambertville to Gettysburg, in the vicinity of Philadelphia are partly mesozoic. Its next ribbon with bottled waters is triassic deposit with mesozoic intrusions similar to Watchung Mountains in New Jersey. These springs are Pavillion Spring, Berks County, Ephrata Spring, Glacier Spring and Black Barren Spring in Lancaster County, York Spring and Gettysburg Katalysine Spring in Adams County, Pennsylvania.

Virginia shows a small isolated field of the same conditions in Fauquier and Culpeper County with three claimed mineral springs.

North Carolina, South Carolina and Georgia contain almost no triassic deposits. There was a large district of precambrian crystalline rocks situated near the seashore in mesozoic time and this district contains the same mesozoic intrusions as the triassic district of the Middle Atlantic area.

I wrote to all the twenty-two springs of the district of New Jersey. Five have answered, sending me reports of the analyses of their water. One other answered a long time ago. A few of the remaining springs could not be located by the Postmaster; they were four in number, and the letters were returned to me as unclaimed. The rest did not answer at all. A few of the remaining twelve springs do not seem to live up to the requirements of natural medicinal spring water. The majority of these waters seem to be trustworthy and reliable. Evidently the owners do not understand the high value of the publicity of their analyses.

The analyses received from the above mentioned six springs are recalculated to the decimal system and free ions and they are tabulated below. Alco Spring, Watchung Spring, Rock Spring, Culm Rock Spring belong to regular field. Trinity Spring is in relation to the Palisades intrusion and the Englewood Spring is influenced by glacial drift.

	Aleo	Watchung	Rock Spring	Colum Rock	Trinity	Englewood
Na	Not given	0.000149	0.00048	0.00038	0.000545	0.0040*
K	Not given	0.000049	0.00002	0.00008	Not given	Not given
NH ₃	0.000028	0.000041	0.0000018	Not given	Not given	0.0000048
Mg	0.00048	0.00026	0.000575	0.00051	0.000539	0.00135
Ca	0.00019	0.00048	0.0011	0.00176	0.00314	0.0111
Fe	0.00017	0.000034	Not given	0.00006	0.000056	0.000034
Cl	0.000369	0.000261	0.000416	0.00020	0.000551	0.0061
SO ₄	0.00076	0.000140	Not given	0.000409	0.00349	0.01012
NO ₃	Not given	0.000031	0.000487	Not given	0.000492	0.000027
CO ₃	Not given	0.00122	0.004672	0.00423	0.00387	0.01383*
SiO ₂	0.00088	0.0022	0.002497	0.0034	0.000162	0.00036
T. S.	0.00957	0.0053	0.010872	0.0112	0.012886	0.0492

*Evidently suggested by the analyst, but not determined by analytical means.

The volcanic triassic district of New Jersey furnishes waters of a homogeneous character of very low mineralization with remarkable amount of silica. The many intersecting volcanic rocks lead one to suggest that the waters are the most radioactive in the vicinity of New York.

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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Health Insurance.

1. The proposed Compulsory Health Insurance Law, submitted with minor differences in over half the states, is obviously, a labor measure. To this we have no objection but:

2. Neither this nor any other legislation should give special privileges to a class, although the peculiar conditions applying to any occupation may fully justify legislation regarding it which would not be applicable to other occupations.

3. It is stated that the proposed law would, including dependents, apply to about 80% of the population. Whether this is true or not, and whether we view the matter from the interests of the community at large or of labor, there should be no arbitrary distinction between labor and work, in the broad sense of performing some necessary task in exchange for a living. We want no laboring class in this country, any more than we want a professional caste or a leisure class. The recognition of one implies the recognition of the other. Neither manual nor mental labor should be either favored or discriminated against. There is no form of muscular work that does not require brains while, per contra, there are remarkably few brain workers who do not, in the necessary course of their duties, use their muscles to a considerable degree. Whether muscular action involves high usage of calories and much sweat or whether it is of value mainly through its delicate coordination, is a matter of indifference. The present classification of labor, or at least what many advocate as a classification of labor, is almost purely arbitrary, either

as to income, need for special protection or even the differentiation according to muscular or mental work. The law should provide equably for all honest workers, according to their need of special protection, without regard to whether their special danger is rheumatism from exposure or anaemia from indoor confinement, whether their working clothes are necessarily soiled or not, whether they are selling one kind of service or another, whether they are imagined to use their brains to direct their muscles or whether their intelligence must find some less direct method of interpretation into practical results.

4. From the practical standpoint, there is probably no better line of demarcation between those who need state insurance against disability and those who may safely be left to their own saving capacity or voluntary provision of insurance, than the one of income. But, it is a matter of common sense and justice that the clerk or salesman requires exactly the same degree of protection as the so-called manual laborer and that the high-salaried executive, nominally classified as a manual laborer, does not require special protection, any more than the man gaining the same income by teaching, preaching, practicing medicine or on an office force. The number of dependents upon a worker obviously should influence the income-line at which he is included within or excluded from the provisions of any such law and this fact incidentally brings up rather puzzling questions as to age and sex limits. It may be questioned whether the \$1200 limit is a practicable one. It is not so long ago that such an income was regarded as indicating a pretty high degree of prosperity and, at least, sufficient ability to take care of one's own responsibilities. At least until the law has been tried out by experience, it is well to limit its application to an experimental basis. Serious difficulties have arisen in a western state by a miscalculation as to the funds necessary to provide the kind of insurance sought. A large deficit exists and the problem with regard to it is pressing and embarrassing in many ways. By setting an income limit that would cover a fair minority, say 25-30% of the population, that most needs protection, immediate requirements would be fulfilled, various practical problems could be solved without, on the one hand, the temptations to graft which an unnecessarily high premium estimate would tend to establish, or the serious deficit which would arise from an under-estimate of the expense. As suggested, the income limit should be in no sense arbitrary and should consider the dependents upon the worker.

5. We question seriously whether, beyond the require-

ment of safety and hygienic provisions, any part of the tax should fall directly on the employer. This view is based not on a consideration for the interests of the latter but on the inevitable tendency to place the burden ultimately on the insured, by lowering or at least failing to raise wages, and by raising prices which, in the long run, will have exactly the same tendency. Moreover, having unequivocally asserted that insurance should apply to all who need it, it is obvious that it will be exceedingly difficult in practice to distinguish between employers on a large scale and those on a small, even a domestic scale, and impossible to levy a proportionate tax on employers who are such merely by dealing with some one whose services are of value to them, but whom they employ only temporarily or indirectly. In short, the premiums must be borne by the beneficiaries except for such a percentage as may reasonably be contributed by the state as a philanthropic protection, not so much as a charity as for the ultimate best interests of the community.

6. As to the tendency to socialize the services of the medical profession, we regard the fears expressed as somewhat imaginary. With few exceptions, which the medical profession regrets as much as anyone else, its services always have been socialized in the practical sense. They have been free to the deserving poor, graded according to the means of the patient, never protected against even wilful neglect of compensation and never subject to general exploitation, according to business principles and procedures applying to services and commodities in general. As was pointed out in our issue of October 1915, 1.15% of the physicians of the country are employed by the nation; 2% of those of the state by the state; 0.5% of those of the county by the county; 3.7% of those of the city by the city. With due allowance for medical services regarding which statistics are very incomplete, 10% of the profession of the country is undoubtedly already in some form of public service and probably 20% of the aggregate income of the profession is publicly paid for, there being a great deal of partial public employment. Private organizations of various kinds, both corporate in the ordinary sense and philanthropic, also provide a considerable amount of the professional support, on a basis which is practically that implied in legislation of the kind considered. There are not—but there should be—comprehensive statistics on this point but we should be by no means surprised to learn that the profession of this country is already socialized to the extent of 40%, of its total earnings.

7. The real danger to the medical profession is not that it will be socialized by legislation of this sort, but that it will

be exploited, as it undoubtedly has been in certain foreign countries, either by utterly inadequate pay or unreasonable requirements of work. It should be put squarely before labor leaders that the medical profession demands at least the pay of skilled labor, so far as practicable, the same insistence on hours of labor and the same allowance for night work or the undue fatigue of overtime. And it should be put squarely before legislators that the profession demands not merely the implied protection of representation on advisory boards but just as definite and authoritative protection of its interests as any other group of men involved.

Liquor Advertising.

There are at present two bills pending before congress which deserve serious consideration. Both apply to all forms of advertisements, including those appearing in periodicals. The Randall bill (H. R. 18986) provides that no such advertisement, or periodical containing it, shall be mailed to anyone but a licensed manufacturer of or dealer in liquors. The Bankhead bill (S. R. 4429) provides merely that such matter shall not be mailed to any state or territory where the law at any time prohibits the advertisement or solicitation of orders for liquors.

It is an axiom of democratic government that the law shall not interfere with individual liberty although, generally and in regard to this particular issue, the principle of safeguarding society as a whole leaves it an open question whether the use of alcohol as a beverage is an individual right or whether it comes properly within the class of action detrimental to the safety of persons and property.

It is also an axiom that any law contrary to public opinion and actual usage, will be inefficient, will lead to marked injustice in its inforcement and to blackmail. The actual facts are that the year 1916, marked by great gains in anti-alcoholic voting, was also marked by a tremendous increase in the use of strong liquors over all past records and by only a slight, fluctuating decrease in the use of milder alcoholic beverages.

The proposed national legislation is, in accordance with these general principles, either right or wrong—on the face of the matter decidedly wrong and we make this statement in spite of strong personal and hereditary anti-alcoholic opinions. If we concede that the qualifications expressed allow the general tendencies of these bills to be considered as right, either of them is objectionable as striking at a branch

instead of at the root of the evil. Or, to use a still more accurate figure of speech, either is objectionable as maiming an objectionable animal, and producing suffering and disease, instead of killing it mercifully at one blow in a vital spot.

So far as direct circular advertising is concerned, speaking either from the standpoint of a busy individual or with the bias of a publisher, we would welcome the interdiction not only of liquor advertising by mail, but of all forms. Such advertising is, in at least 95% of cases, a nuisance to the recipient and a handicap to the postal service in caring for useful mail. Whether it aids or injures the postoffice, from the purely financial aspect, we do not know. Circular advertising is the most expensive and the least efficient to the advertiser, except under particular conditions, as for example when the market is found among persons of leisure, who have practically no correspondence and who are thrilled with delight even at the receipt of a circular letter or card. It has, generally speaking, the sole, specious advantage of lending itself to statistics, whereas legitimate advertising in periodicals must be judged according to more general results. But, though as an individual or a publisher, we would welcome the elimination of advertising matter from the mail, we would not approve of legislation to this end, for liquors or anything else, for the reason that we believe that no one would seek to have his own interests or even his own conceptions of ethical and moral issues forced on others by law. The general action of economic law, argument as to matters of judgment and of individual conceptions of right and wrong are in the long run, far safer and saner methods of securing desired ends. At any rate, law should follow and formulate public opinion and practice, rather than precede and force it.

So far as advertisements in periodicals are concerned, the two bills are practically one. No publication worthy the name can so assort its circulation and control its secondary distribution by private individuals, or subdivide its editions to comply with the apparently more lenient provisions of the Bankhead bill, especially when we consider that both bills provide a penalty up to \$1000 fine plus two years' imprisonment for the first offense.

From the limited view of medical journalism, these bills are especially objectionable. Only a minority of extremists deny that alcoholic liquors have a place of importance in therapeutics. Certain beliefs as to tonic and nutritive value have been largely discarded on account of convincing scientific demonstration. The range of alcoholic therapeutics has been narrowed as compared with the standards not only of ancient but of recent medical history. But, the great

majority of the medical profession, even including men like the writer who are absolutely opposed to the non-medicinal use of alcohol, still rank alcohol and its preparations among the important and indispensable drugs. In common with all other drugs, it is practically necessary that they should be advertised to the medical profession, at least, and such a practice by constantly emphasizing the proper field of alcohol for internal use, is one of the greatest factors available in curtailing its improper use. Yet neither of these bills makes allowance for this incontrovertible fact. On the contrary, both of them practically demand that this drug and its preparations shall be excluded from their only medium of publicity which is generally admitted; they thus eliminate one of the most powerful and most easily applied methods of enforcing proper standards of quality; by implying private sources of information as the sole available one, they virtually insist that the treatment of disease, in this particular shall ultimately become surreptitious. Yet there are obvious objections to inserting in either of the bills a special exemption of medical publications. Not to mention the general objections to such limitation of effect, we would speedily have a crop of fictitious medical journals emanating from interested sources, that would almost inevitably tend to throw the whole matter of quack medicine back where it was a quarter of a century or more ago.

National Guard Or?

In our issue of Feb. 1916, we expressed the opinion that the National Guard system should be adhered to, instead of creating a new Continental Army. This opinion was not so much a personal one as a compilation of the best that could be obtained from those presumably familiar with conditions. We are not yet disposed to acknowledge that this opinion was an error. It is true that a considerable percentage of the Guard was found not to be up to the physical standards for actual service but no harm was done by accepting these men, either to the Guard for its established functions nor to the men themselves. Those rejected might still be of value if the need of national defense were emergent. It is doubtful if their places would have been filled by others if they had been rejected by the Guard surgeons. The Guard soldiers were, in many states, neither well drilled nor thoroughly equipped nor were the ranks full. But they were a good deal better than nothing and nothing else was available except entirely raw recruits. The Guard was not promptly

mobilized at the border nor always properly transported according to peace standards but this was a defect of the national authorities, not of the Guard itself. It has been said that, owing to lack of ammunition, patrols often served with empty guns—but this can scarcely be charged against the Guard. It is said that the Guard has developed a “never again” spirit. Political considerations aside, it must be recognized that the patriotism that will enlist only in the presence of immediate danger and that will sacrifice business interests only when immediate fighting is to be indulged in, is of very little protective value. The border service has been of the kind necessary to insure actual training for war and, as we understand Preparedness, it means not so much getting an army together to fight as to have it ready to prevent fighting. The waiting policy at the border has been exactly the kind of training proposed for the Continental Army, plus environment and expectations increasing its realism. On the average, it will even have equaled in length of actual training about what was proposed for the Continental Army so that the “never again” spirit, if universal among the returned soldiers will mean only that they will ask discharge as was proposed for the Continental Army, from active service or immediate connection with a military organization.

We do not by any means subscribe to the theory that the border service should have been performed entirely by the regular army, that all such forms of national police work should be thus performed. However large the regular army, however adequate to any such task, similar services should be participated in by the organized militia as a preparation for defense on a large scale if it ever becomes imperative.

The advantages of local organization, with personal acquaintance between officers and men, opportunities for training without interruption of civil pursuits, for furnishing social and athletic incentives for enlistment, for allowing rapid and convenient means of mobilization, for the development of local esprit de corps as well as national patriotism, are all points of practical superiority. The local basis of organization of any protective military force should, if anything, be further emphasized. Every unit should feel secure that it will be mobilized under its own officers and recruited from its own locality, unless there are grave military reasons to the contrary, as during the actual progress of a war of considerable duration. Disregard of this principle has been one of the greatest handicaps of the Guard and will undoubtedly deter enlistment and serious study by officers, after the return to the normal peace conditions existing a year ago.

But, we must face the lessons of practical experience. The Guard can no longer be satisfactorily maintained as a protection against strikes. That form of police duty can be best performed by a definite constabulary. Labor will not, whatever the ethics of the case, consent to oppose its own kind and if the Guard could be sufficiently maintained without the participation of laboring men in the usual sense of the word, there would arise not only an undesirable but a dangerous class antagonism. Both individual and public sentiment demands that the soldier shall not unduly sacrifice his earning capacity, opportunities for promotion, and his family. Either his employers, or the community, unofficially or through taxation, must make up to him and to his family a considerable portion of his loss. This means that a man of fair earning capacity, well started in life and with a family, costs more than he is worth as a private soldier and that it is contrary to public policy to enlist him unless in great emergency. There is also a growing sentiment, in and out of the National Guard that it is not true patriotism to continue a purely voluntary service which allows a general shirking of duty and places on the volunteer not only his own share of patriotism and self-sacrificing, but that of others. Something like universal military service is very widely advocated, not only as a means of national defense on an adequate scale but for the benefits accruing to the community and to the individual in peace. More recently it has been proposed, in N. Y. at least, to do away altogether with state provision for military organization. This would be a radical step but it places the responsibility squarely on the national government, implicitly demands that the burden be equally distributed over the whole country, and that the national military authorities maintain a state of preparedness such as they must even to take over the organized militia in time of need. We also regard it favorably as one step toward the elimination of state governments altogether—which is not entirely an indication of personal folly, since it was contemplated and openly discussed by the original constitutional convention. There is very little opposition to the view that the National Guard must become more national, but even if this policy is pursued to a radical degree, it is by no means necessary to ignore the present Guard as a basis nor to do away with the system of organization by local units.

Haemostatic Action of Peptone in Typhoid Haemorrhages.

P. Nolf, Soc. Biol., July 22, 1916, uses 10 c.c. of a 5% sterilized solution, every day or every other day, according to circumstances, and claims uniformly good results.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following. Pamphlets, quarterly and similar periodicals, reports, transactions, etc., will, as a rule, merely be mentioned.

Freud's Theories of the Neuroses. Dr. Eduard Hitschmann, Vienna, authorized translation by Charles Rockwell Payne, M. D., Moffatt, Yard & Co., N. Y., 257 pages, \$2.00.

The Neurotic Constitution. Dr. Alfred Adler, Vienna, authorized translation by Bernard Gluck, M. D. and John E. Lind, M. D., Moffatt, Yard & Co., N. Y., 456 pages, \$3.00.

These books deal with essentially the same subject, viewed from different angles. They discuss, the latter in greater variety and detail, the expressions of mental states in dreams, subconsciously, or in forms of sexuality, often perverted or inverted. While not in themselves controversial, they naturally tend to continue the controversy aroused as to the Freudian conceptions. As for other works along this subject, it seems to us that undue prominence is ascribed to the sexual factor, especially when it is interpreted from dreams, obsessions and tendencies that do not directly suggest it. It must, of course, be admitted that this factor is frequently the dominating one even in normal persons, more so in neurotics. Still, it may be questioned whether the sexual factor is necessarily exaggerated in neurotics.

Federal Responsibility in the Solution of the Habit-Forming Drug Problem. Charles B. Towns, M. D., N. Y. Pamphlet.

The U. S. Commissioner of Internal Revenue has proposed certain amendments to the Harrison Law which may be summed up as applying a stamp to the taxation and control of narcotics and as making the law conform more closely to the general provisions of internal revenue statutes. The author divides the users of narcotics into hopeless, bona fide addicts who, after registration for purposes of identification, should be allowed access to such drugs, without extra expense or subterfuge; persons who have acquired the habit in the course of a painful disease no longer existing but who can stop it without definite treatment; underworld addicts, for whom some international system of control of the supply is necessary. The pamphlet deserves careful study.

A Manual of Nervous Diseases, by Irving J. Spear, M. D., Professor of Neurology at the University of Maryland, Baltimore. 12mo of 660 pages with 169 illustrations. Philadelphia and London: W. B. Saunders Company. 1916. Cloth, \$2.75 net.

The size of the pages ($5\frac{3}{4} \times 3\frac{3}{4}$ net) somewhat handicaps the author in showing tables and illustrations; otherwise the frequent use of these methods of teaching, is excellent. The descriptions are clear and the conception good. For instance, note how the whole matter of apoplexy, etc., is clarified by the mere title: "Rupture or Occlusion of the Cerebral Arteries." Bone lesions, both as causes and results of nervous conditions, are of course elucidated by Roentgenology. A considerable group of heretofore puzzling and unclassifiable conditions is now logically considered as symptomatic of disease of the ductless glands. The infectious element in the etiology of various nervous diseases is mentioned only incidentally and it seems that the author is somewhat sceptic on this point. For example, he estimates that "fully 40% of the acute choreas are caused by the absorption of toxic substances which are formed as the result of bacterial activity," whereas many writers convey the impression that most such manifestations are directly infectious. The recent claim of a bacterium for epilepsy is ignored and tetanus is discussed with achondroplasia, as an unclassified disorder, hydrophobia being merely mentioned in the differential diagnosis. This method discussion is sound. Too often a discussion of nervous diseases is a treatise on syphilis, tuberculosis and infections in general, with only incidental allusion to the distinctly nervous manifestations, and the reader receives an exaggerated impression of the role of bacteria.

Care of Patients undergoing Gynecologic and Abdominal Procedures, before, during, and after operation by E. E. Montgomery, M. D., Professor of Gynecology in Jefferson Medical College, Philadelphia. 12mo of 149 pages with 61 illustrations. Philadelphia and London: W. B. Saunders Company. 1916. Cloth, \$1.25 net.

This work was prepared during the convalescence of the author from an operation—a lesson in industry that many of us may take to heart. Like many other useful books, it is somewhat difficult to classify. It is not strictly a treatise for nurses nor an operating room manual while, of course, it makes no pretense to being a work on general surgery. It deals with the details of attention to the patient, provision

of instruments and dressings and the very important part of surgery after general scientific knowledge and technical skill are taken for granted. It is a work that appeals especially to surgical nurses, internes, surgical assistants and those ambitious to develop that degree of surgical skill which not only gives to the term success, a statistic meaning but which interprets it as the survival and health of the patient.

A Text-Book on the Practice of Gynecology. For Practitioners and Students. By W. Easterly Ashton, M. D., LL.D., Professor of Gynecology in Graduate School of Medicine of the University of Pennsylvania. Sixth Edition, Thoroughly Revised. Octavo of 1097 pages with 1052 original line drawings. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$6.50 net; Half Morocco, \$8.00 net.

The first 150 pages are devoted to general considerations, such as the technic of examinations, causes of disease peculiar to women, history taking, methods of examining the abdomen and rectum, use of X-rays, and includes several chapters that may be considered the medical aspects of gynaecologic diagnosis and treatment, as microscopic and bacteriologic examinations and that of the blood, hydrotherapy, diet, exercise and saline injections. The further arrangement of the work is, so far as practicable, by organs, as the vulva, vagina, uterus, tubes, ovaries, urinary organs, etc., and by such topics as ectopic gestation, suppuration of the pelvic connective tissue, menstrual disorders, etc. Thus surgery is not unduly emphasized nor taken out of its proper relations to other means of treatment, although fully discussed. The author is conservative but in the true conservative sense. The number of editions through which the work has passed not only attests its excellence but has given the opportunity for still greater excellence.

A Treatise on Diseases of the Skin. For the use of advanced Students and Practitioners. By Henry Stelwagon, M. D., Ph. D., Professor of Dermatology, Jefferson Medical College, Philadelphia. Eighth edition, thoroughly revised. Octavo of 1309 pages, with 356 text-illustrations, and 33 full-page colored and half-tone plates. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$6.50 net; Half Morocco, \$8.00 net.

Thorough text books on this subject have become quite well standardized as to arrangement, and this work has become standard as an authority. One notes, however, a gradual

and now quite marked departure from the artificial system of classifying skin diseases by superficial lesions, and a gratifying diminution in those conditions which are not well understood as to general nature. Syphilis remains an important part of dermatology is becoming a true specialty and not merely a combination with venereal diseases.

Evolution Proving Immortality. John O. Yeiser, Omaha. Published by National Magazine Assn., Omaha. 200 pages, illustrated, paper covers, \$1.50.

While for obvious reasons, it is unwise for a medical journal to attempt a critical review of the arguments adduced, it may be said that the book is interesting and in line with the present interests of the public.

The Practical Medicine Series. Charles L. Mix, A. M., M. D., General Editor. The Year Book Publishers, 327 S. La Salle St., Chicago. Series 1916, 10 volumes, \$10.

Vol. 9, Skin and Venereal Diseases, Oliver S. Ormsby and James Herbert Mitchell, editors, 238 pages, \$1.35 separately.

Vol. 10, Nervous and Mental Diseases, Hugh T. Patrick, Peter Bassoe and Lewis J. Pollock, editors, 232 pages, \$1.35 separately.

These volumes complete the 1916 series which fully maintains the standard of efficiency previously set for this comprehensive, specialized review of periodical medical literature.

Fern Notes. Oliver Atkins Farwell, Illustrated pamphlet reprinted from 18th Annual Report of Mich. Acad. of Science, Dec. 1916.

Medical Clinics of Chicago. Bi-monthly. W. B. Saunders Co., Philadelphia, \$8 per year. Jan. 1917, Vol. 2, No. 4.

Clinical Gynecology. By James C. Wood, A. M., M. D., F. A. C. S., etc. 236 pages. Cloth, \$2.00 net. Philadelphia, Boericke & Tafel, 1917.

While avowedly a homoeopathic text book, the author emphasizes the importance of a broad basis of general information. The author, though a surgeon, does not discuss operative technic although he has an interesting chapter on post-operative surgical treatment. On the other hand, the work is not a medical gynaecology in the extreme sense; only in that operative measures are merely suggested in general terms,

Considerable space is given to border-land conditions, as gastro-enteric auto-intoxication, mucous entero-colitis, gastric and duodenal ulcer, thyroid diseases, etc.

Hygiene in Mexico, A Study of Sanitary and Engineering Problems, Alberto J. Pani, C. E. City of Mexico; translated by Ernest L. de Gogorza; published by G. P. Putnam's Sons, N. Y., 206 pages, \$1.50.

The author states that his sole purpose was to expose one of the most nefarious inheritances from the past and that the entire proceeds of the Spanish edition were placed at the disposal of the People's University of Mexico, to further hygienic teaching. A chart shows the total mortality of Mexico City in 1911 as a trifle over 42:1000, the next highest rates for cities between 400,000 and 700,000 being for Cairo, Egypt, 40, and Madras, British India, nearly 40. Next in order come Madrid, Marseilles, Dublin and Rome, about 23. The average for European cities is 17.53, for American cities 16.1 (really a better rate for the former, considering the direct influence of adult immigration in adding to population without the high death rate incident to the breeding process). It is surprising to note the minimum rates: Amsterdam and Rotterdam, 12.4, Frankfort-am-Main 12.1, and Smyrna, 10.83. The relation of illiteracy to high mortality is shown in another chart, though the relation is not at all exact. The book is certainly timely.

TOPICS OF PUBLIC INTEREST

State After-Care of Infantile Paralysis. Of 2,887 patients reported to the Dept. of Health prior to Oct. 1, 1916, 1,891 had been examined by department surgeons up to Jan. 20. Of the 996 not examined, it is believed that the majority either recovered completely or are under competent orthopaedic care. 801 deaths occurred in the state last year, directly or indirectly from poliomyelitis. 72 clinics have been held since Oct. 17, with an average attendance of 27 patients.

Injunction Against Typhoid Inoculation Refused. In the quarter-year, July-Sept., 1916, Indianapolis had 600 cases of typhoid and 34 deaths in a population of 295,000. At one time in Aug., the City Hospital had 60 children under treatment at once. Inoculation was made compulsory for school attendance. An application for an injunction by the father

of a child, was refused by Judge Lewis B. Ewbank, Sept. 27. His decision was based largely on rulings as to the constitutionality of health boards and statutes requiring small pox vaccination, especially in epidemics.—(Medico-Legal Jour., Oct. 1916).

Compulsory Military Training and Venereal Disease. The American Union against Militarism, Washington, has issued an abstract of the testimony of Dr. S. Pollitzer of N. Y. before the sub-committee of the U. S. Senate Committee on Military Affairs, emphasizing the importance of this evil in any system of encampments. Granting this argument to be valid, it must also be granted that a venereal epidemic would also result if the country were invaded on account of unpreparedness. How real this danger is, no one actually knows. But, the same men who would contract venereal diseases in a military encampment of reasonable duration, would, in our estimation, contract them anyhow, even if they do not carry them already. It must be considered also that military discipline allows not only education but arbitrary prophylaxis, to a better degree than civil liberty.

Tuberculosis Decline. In N. Y. State outside of N. Y. City, there were 5,572 deaths from pulmonary and acute military tuberculosis in 1900; 5404 in 1915, the population having meantime increased from 3,836,038 to 4,640,523, so that the rate per 1000 population declined from 1.453 to 1.165. Or, to put the same fact in different terms, a little less than 82% died, as compared with the expectation on the same degree of prevalence as in 1900. The decline has been progressive, with just enough fluctuation from year to year to impress one with its genuineness. We venture to repeat a prophecy made a few years ago, that just as soon as the decline of this disease becomes sufficient so that it is no longer a question of how many chances a month, every one has of suffering an implanting of bacilli which may or may not develop according to his resistance, but of whether the average individual does or not come in contact with bacilli, say once a month or once a year, the decline will be much more rapid and will follow approximately a downward geometric series instead of an arithmetic series.

The Bubbling Fountain is stated by the Ind. State Med. Assn.' Jan., to have been the source of an epidemic of streptococcus amygdalitis at the University of Wis. Streptococci were found on more than half of the fountains, lodged on the metal piece surrounding the mouth of the water pipe. (Note.

We have often wondered just how effective the current of water might be against the rinsing of various mouths, including sometimes those of dogs, birds and horses and against the grimy hands of boys who squirt water from these sanitary (?) supplies. Ed.)

German Wounded. Of those wounded in the second year of the war, 70% recovered sufficiently to return to the trenches, 6.4% were permanently disabled, the remainder being fit for home service. Epidemic diseases dropped from 51: 1000 for the first year to 38: 1000 for the second year. 21.5: 1000 were nervous, due to the strain of warfare. Pleurisy amounted to 6: 1000 and pneumonia to 4; 1000. Small pox has entirely disappeared and typhus, typhoid, cholera, etc., have been practically eliminated. The total morbidity has dropped from 120 to 100: 1000, according to monthly reports. (Note: If the 1000 basis is, for all these figures, the total number of troops, it will realize that there is a narrow margin for trivial ailments and that there is an average disablement from disease alone, of about 7%, all the time, beside temporary disablement from disease, wounds and death. Ed.)

Drugless Healers. The California State Jour. of Med., Feb., speaks favorably of the California law which divides all practitioners into two classes: Physicians and surgeons, who are authorized "to use drugs..... and any or all other methods in the treatment of diseases, injuries, deformities or other physical or mental conditions" and "Drugless Practitioners, who are authorized to practice" without the use of drugs and without in any manner severing or penetrating any of the tissues of human beings except the severing of the umbilical cord." Reasonable educational requirements are demanded for either class of license and diplomas must be presented from schools approved by the Board, and certificates of good moral character. We noted in our Feb. issue that the law had been declared constitutional by the U. S. Supreme Court, in dismissing suits brought by a chiropractor and a "drugless ophthalmologist." We understand that Christian Scientists and others claiming to heal by prayer are exempt. We confess also that, somehow, we had understood that the law was regarded unfavorably by the medical profession. The California State Journal, though admitting that the law has some defects, regards it as a strong protection and warns that it must not be weakened, especially emphasizing the value of the control of the Board which has compelled certain institutions to make radical improvements or go out of business. The division of all prac-

tioners into two classes seems simple and the definition of the respective powers of medical licentiates and what the medical profession rather scornfully likes to call "id omne genus" seems also to have been reduced to remarkably simple and clear language although it occurs to us that, by a quibble, barbers and manicurists might be indicted as severing human tissues. It is worth while for the medical profession of other states to study this law and its practical results, carefully.

A New Medical Research Work. T. D. Crothers, M. D., Hartford, Conn. A new Research Foundation has been organized at Hartford, Conn., to inquire into the causes and conditions both physical and psychical which antedate all use of spirits. For a long time there has been a growing conviction founded on observation and exact studies, that alcoholism and inebriety, were symptoms of conditions that had been developed long before. It has also been stated that when these conditions were known and properly treated, future spirit and drug taking would be practically stamped out. Wherever the phenomena of the drink evil has been studied, most perplexing symptomology and paradoxical progress has been noted. If the opinion of laymen was correct and alcohol was the only and specific cause, there would be certain uniformity of growth and development and the removal of the cause would be followed by complete restoration. This, does not follow, showing that other causes are influential beyond that of alcohol. What these are is practically unknown. The literature of opinions and theories is very extensive but the range of verifiable facts are small and outside of the laboratory work, are largely unknown. Studies of preventive medicine show that the most important field is to find the actual causes and remove them. Most startling examples are evident in the tracing of the causes of fevers back to their sources and removing these. In this way, several great scourges have been practically driven out. These studies show that the armies of drink and drug takers of today have been literally, born, bred and developed by conditions in the past, also, that the armies of drinking men in the future are growing up now in our own surroundings—not in the slum districts but in the homes of all grades of society. If we could know the causes and conditions, that produce these defectives a new field of medical practice would be opened. Thoughtful physicians everywhere recognize the range of cause and effect and the region of physical and psychical laws that will produce drink and drug takers and other neurosis in the future with absolute certainty. There

is a great wealth of facts here which have never been studied and this research foundation proposes to occupy this new field. What is called Psycho-Analysis in the largest meaning of this word, has never been put to service, in the study of these neurotics. Here there is a great wealth of facts and it is assumed that most astonishing results will follow, when these facts are correlated and put to service in actual practice. There are many problems in the drink question that are explained by theories that are unverifiable. The laboratories have shown that alcohol is a narcotic and depressant and this discovery has practically changed medical practice respecting alcohol as remedy. Equally startling discoveries await exact studies in this field of causes back of the use of alcohol, evidently, public sentiment is rapidly forcing the alcoholic question into prominence and every community will be called on to express opinions and to take an active part in the measures for relief. This is literally a physician's problem and to them will be referred the disputed questions. This new work proposes to furnish facts and data from which, they can form conclusions and in this respect, is the last great scientific effort, to point out causes and means and methods for removal above sentiment and theory. Its practical character and the possibilities from such a study appeal to everyone both laymen and physicians as an effort requiring the warmest endorsement and support.

Centenarian. Mrs. Samuel Sipe, aged 104, a friend of Molly Pitcher, died at Carlisle, Pa., Feb. 10. She was born in Switzerland but had lived in Carlisle over a century.

Rabies. Dr. W. A. Scott, Health Officer of N. Tonawanda reports that 10 dogs died of that disease in Jan. 105 dogs were taken to the pound and 76 were killed. 3 human beings were bitten by dogs.

Flies. Remember that the winter and spring are the seasons at which the killing of individual flies is worth while. Prepare early for screening and the use of traps, and see that accumulations of garbage and manure are disposed of before warm weather sets in.

McIntire Prize. This is established by the American Academy of Medicine, in honor of the completion of 25 years of service as Secretary, of Dr. Charles McIntire of Easton, Pa., one of its founders in 1876. It will be awarded triennially, the amount not being as yet definitely stated. The subject for competition in 1918 is "The Principles of Governing

the Physician's Compensation in the Various Forms of Social Insurance." The competition open to all. Essays must be type-written, in English, between 5,000 and 20,000 words in length, exclusive of tables, must be submitted under the usual conditions of secrecy, on or before Jan. 1, 1918. The chairman of the committee of awards is Dr. John L. Heffron, Syracuse.

Alexander Graham Bell Grosvenor Memorial Prize. The Volta Bureau report that the contest closed last fall resulted in no award (possibly because the essays were very narrowly limited to 20,000-21,000 words). The contest will, therefore, be open to essays received before Nov. 1, 1917. The subject is the home training of deaf children and the prize is \$300. Those who contemplate competing should secure full details from the Supt. of the Volta Bureau, 1601 35th St., N. W., Washington. This Bureau conducts an excellent journal, dealing with the instruction of the deaf and the study of phonetics and will send, on application, valuable literature, to any deaf person or anyone interested in the care of the deaf. It does not give medical advice, has no drugs nor instruments for sale, and conducts no school, so that it has the cordial support of the medical profession.

Civil Service Positions. The following may interest medical men and women. For most positions, U. S. citizenship, 3 month's residence in N.Y. State and at least 21 years in the world, are required. Apply for forms to the Civil Service Commission, Albany, not later than Mch. 19. Examinations will be held in several places, to be determined later, on March 31.

78. Assistant Chemist, Public Service Commission, First District. \$1201 to \$1500. Men only. Candidates must be graduate chemists with at least two years' practical experience. The examination will presuppose a familiarity with analyses of steel and cast iron, cement, asphalt, coal tar pitches, mixed paints, dry pigments, etc., water analyses, gas-testing methods, use of the microscope and general chemistry. Subjects of examination and relative weights: Written examination, 6; education and experience, 4. Open to non-residents: No sample questions.

79. Water Analyst, State Department of Health. \$1600. Men only. Appointees must have a thorough training in analytical chemistry, with some practical laboratory experience in water analysis. Subjects of examination and relative weights: General and sanitary chemistry and water analysis,

6; education and experience, 4. Open to non-residents and non-citizens. No sample questions.

80. Laboratory Assistant in Bacteriology, State Department of Health. Men and Women. \$720 to \$1200. Open to non-residents and non-citizens. Only candidates who have satisfactorily completed a systematic course in bacteriology and have also had not less than three months' practical experience in laboratory work will be accepted. Candidates will be examined in the technical procedures used in the study of pathogenic bacteria of infectious disease, and immunity, and the standard methods used in the examination of milk, water, sewage, air and soil. Subjects of examination and relative weights: Written examination relating to the duties of the position, 6; education and experience, 4. No sample questions.

81. Director of the Division of Vital Statistics, State Department of Health. Salary \$4000 a year. Open to men only. Candidates must have had not less than five years' experience in the collection, interpretation and publication of vital statistics. The Director of the Division of Vital Statistics is the administrative and statistical head and has full charge of the work of the Division. He supervises the collection of certificates of births, deaths and marriages occurring in the State which are filed with the Department, and outlines and supervises the tabulation of compilation of the statistical items on the certificates, and analyzes same for monthly and annual reports of the Department. He aids in enforcing the provisions of the Vital Statistics Law requiring the complete registration of all births, deaths and marriages occurring in the State, makes special investigations as to the completeness of the registration, and conducts such special statistical investigations as may be required by the State Commissioner of Health. Subjects of examination and relative weights: Written examination relating to the duties of the position, 2; oral examination, 4; experience and personal qualifications, 4. Open to non-residents. No sample questions.

82. Prison Physician, State Prisons and Reformatories. Salary, \$2000 without maintenance. Examination open only to men who are licensed medical practitioners in this State. It is desired to secure applicants who since graduation have had at least one years' experience on the resident medical staff of a general hospital. Subjects of examination and relative weights: Written examination pertaining to the duties of the position, 6; education and personal qualifications, 4. Candidates who attain at least 60 per cent. in the written examination may be summoned before the examining committee in connection with the rating of the last mentioned

subject. It is expected that one appointment will be made at Sing Sing prison in the near future, where the appointee will be fully responsible for the medical service, including hospital.

83. Assistant Prison Physician, State Prisons and Reformatories. Salary, \$1500 without maintenance. Examination open only to men who are licensed medical practitioners in this State, and preference will be given to those who since graduation have had at least one year's experience on the resident medical staff of a general hospital. Subjects of examination and relative weights: Written examination, pertaining to the duties of the position, including laboratory work, prison sanitation and hygiene, 6; education, experience and personal qualifications, 4. Candidates who attain at least 60 per cent. in the written examination may be summoned before the examining committee in connection with the rating of the last mentioned subject. It is expected that one appointment will be made in the near future at Sing Sing prison.

84. Assistant Physician, Regular or Homeopathic. This examination is intended to provide eligibles for the position of assistant physician in the State hospitals and for other positions of a similar nature in various State and County institutions. Salary in the State hospitals \$1200, increasing \$100 each year to \$1600, with maintenance, including quarters, board, laundry, etc. Examination open to men and women who are licensed medical practitioners in this State, who have graduated from a registered medical school and who since graduation have had one year's experience on the resident medical staff of a general hospital, or as medical interne or clinical assistant in a State hospital or institution or have been engaged for three consecutive years in the practice of medicine. Subjects of examination and relative weights: Written examination, covering anatomy, physiology, chemistry, materia medica, therapeutics, obstetrics, surgery, theory and practice, 7; education, experience and personal qualifications, 3. Candidates who attain at least 60 per cent. in the written examination may be summoned before the medical examining committee in connection with the rating of the last mentioned subject. Open to non-residents. Unmarried men preferred.

Swindler Arrested. Feb. 16, a man was arrested in Buffalo who is alleged to have swindled a number of physicians by delivering a package containing an empty bottle, stated to have been ordered from some supply house. His calls were timed so as to reach the office in the doctor's absence. We

wonder if the C. O. D. method was successful in the case of some of our old subscribers who have not paid their subscription bills for several years.

Examination for the Position of Assistant Surgeon in the U. S. Public Health Service will be held monthly at 8 cities, including N. Y. Application should be made to the Surgeon General at Washington, to secure an invitation. Applicants must be between 23 and 32 years old.

Anthrax. Several cattle and horses were found to be suffering from anthrax on a farm near Corning, Jan. 30. Infection is supposed to have been due to drinking water from the Tioga River, contaminated by tanneries up-stream in Pennsylvania.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

Excerpt, from 1916 Annual Report of Board of Censors of the Medical Society of the County of Erie, by J. D. Bonnar, chairman. That much has been written and said about the "division of fees" question, is well known to us all. Its cognate associate, in the ethical field, is the fee charged for surgical work. Not that we should lessen, in the least degree, the merits of any one of the vast variety of operations, justly performed for human relief. That is not our object, but rather that there be retained a just parity between the surgical and medical service demanded for such relief of the sick. Forsooth, if the surgical aid absorbs all the means at the disposal of the patient, or nearly all, the physician has short shrift. Now it is apparent, upon close study, that there is right in that field a vital lack of strict equity. To rectify this error, I personally maintain that the fee, which is paid for the surgical work should be submitted to the opinion of the attending physician. Thus his sense of the eternal fitness of things would give an excellent impression, while standardising the operation with the patient's

ability to pay. The physician meanwhile having an appreciable equity in the case, must also have his equity protected. This analysis will not only give the patient his choice of physicians but give him also the intelligent council of his physician, in deliberations upon any operation, that they may have in prospect. It will likewise be conceded that the diagnosis is a vital first principle, in any case that suggests surgical relief. This responsibility rests chiefly upon the attending physician. Thus is his claim for a parity, in the care of the case, both prior and subsequent to any surgical aid and hence likewise is his right to fair and equitable compensation, justified. In all this reasoning, upon a vital and rational question, we are not doubting the justice of fair compensation for surgical work, but simply demonstrating the parity of responsibility and knowledge demanded of the physician, with that of the surgeon. Hence, in the matter of compensation the money, available for the treatment of the case in hand, must be conserved so that each man in the care of the case, surgically, or medically, is paid out to meet the equitable rights of each—not merely to pay the surgeon. I am not speaking for personal interests, as I have always done my own surgical work—"A capite ad calcem"—from trephining the skull, to excision of a toe. I therefore am entitled, as a physician and surgeon, to speak in this matter, for full equity and even-handed justice.

At the regular meeting of the **Medical Society of the County of Erie**, held at the Buffalo Medical College, Feb. 19, 1917, Dr. Irving W. Potter, presiding, the following were

Reinstated: Dr. James P. Barr, Dr. B. Jacobson, Dr. T. V. Bauer, Dr. W. W. Ross.

Elected: Dr. S. Barone, Dr. B. Bukowski, Dr. F. S. Miller, Dr. L. N. La Mantia, Dr. P. H. J. Buckley, Dr. C. C. Hoffman.

This meeting was devoted entirely to the consideration of the Mills bill now before the legislature, relative to Compulsory Health Insurance. It was discussed from every angle by many of the members present and as a result the following resolution was unanimously adopted:

Resolved, That the Medical Society of the County of Erie, after due and careful consideration, is diametrically opposed to the passage of the proposed Compulsory Health Insurance act on the ground that the said proposed measure is decidedly inimical to the best interests of the public at large and the medical profession.

A postal card referendum had likewise been conducted, the cards being sent to the members with the notice of the meeting. Of the number sent out 435 were returned. Out of this

number 12 expressed themselves as in favor of the bill and 423 as opposed to it.

The Society was also notified that the Buffalo Medical & Surgical League, Gross Medical Club of Buffalo, and the Twin City Academy of Medicine of Tonawanda, N. Y., were also opposed to this measure.

The Secretary also presented resolutions against the Mills bill adopted by the Medical Society of the County of Schenectady, the Flat Bush Medical Society of Brooklyn, N. Y., and by the New York Chamber of Commerce.

The following resolution was also adopted:

Resolved, That the Medical Society of the County of Erie most emphatically disapproves and condemns the extra legal if not illegal endorsement by the Council of the Medical Society of the State of New York of a measure not fully approved by the body of the profession, either in principal or in policy, and while it is still under consideration and discussion by those most vitally affected by its provisions.

FRANKLIN C. GRAM, M. D., Secretary.

The Gross Medical Club held its annual meeting on Friday, Feb. 18th, being entertained by Dr. Geo. F. Cott. The election of officers for the coming year resulted: Dr. Jas. E. King president, Dr. Byron E. Smith of Angola vice-president, Chester C. Cott of Buffalo secretary.

Dr. W. A. Phelps of East Aurora read a very interesting paper on Trichinosis, reporting a series of 16 cases occurring at Elma, N. Y. The earliest appearance of the symptoms was seven days in one case, the longest incubation being 28. All the cases were traceable to one hog that was owned by a farmer at Elma. The sausage, which was the food consumed, had been eaten raw by the different patients, all of which had visited the house of the farmer owning the hog, or had some of the sausage sent them.

On motion of Dr. J. Henry Dowd a resolution was unanimously passed condemning the proposed health insurance bill (Mills), and Dr. Grover W. Wende was appointed as a delegate to go to Albany for the hearing and represent the Gross Club in opposition.

The Federated Alumni of the University of Buffalo held the third annual dinner Feb. 22 at the Hotel Statler, Buffalo.

The Medical Society of the County of Chemung held its regular annual meeting Dec. 19. President's address, R. H. V. Dann, M. D.; Internal use of water, J. C. Fisher, M. D. Officers elected: President, Dr. Clyde Carey; Vice-President,

Dr. Alexander Mark; Secretary, Dr. Mabel Flood; Treasurer, Dr. H. W. Fudge; board of censors, Drs. R. G. Loop, William Brady, C. G. R. Jennings. Amendment to section 1, chapter 10 in by-laws concerning increase in dues was voted upon.

The Dental Alumni of the University of Buffalo held its 17th annual meeting Feb. 16 and 17. As customary, much of the time was devoted to clinics. Those in crown and bridge work were conducted by Dr. Edward B. Spaulding of Detroit, Dr. Marcus L. Ward, Dean of the College of Dentistry of the University of Michigan, Ann Arbor, and Dr. E. T. Tinker of Minneapolis. Officers were elected as follows: President, E. J. Farmer, Buffalo; Vice-president, C. A. Pan-kow, Buffalo; Rec. Sec., J. L. Clement, Buffalo; Treasurer, W. R. Montgomery.

At the meeting of the **Staff of the Buffalo Hospital of the Sisters of Charity**, Feb. 16, the following officers were elected: President, Laurence George Hanley, M. D., LL.D.; Vice-president, Emil Tobie, M. D.; Sec., Frank Abbott, M. D.

The Southern Gastro-Enterological Assn. was organized in Atlanta this winter, representing 17 southern states. Annual meetings will be held. Officers elected were as follows: Pres. J. C. Johnson, Atlanta; V. P., J. T. Rogers, Savannah; Sec.-Treas., Marvin H. Smith, Jacksonville; Council, S. K. Simon, New Orleans, G. M. Niles, Atlanta, Seale Harris, Birmingham; Committee on Admission and Ethics, George C. Mizell, Atlanta, J. E. Knighton, Shreveport, J. B. Fitts, Atlanta.

The Elmira Academy of Medicine held its regular meeting Feb. 7. Program: Some Gynecological Cases, Dr. C. F. Abbott; Focal Infection, Dr. J. Lee Kinner. R. B. Howland, M. D., President; O. J. Bowman, M. D., Secretary.

The Rochester Academy of Medicine Section II, held its regular meeting Feb. 14. Order: Genito-Urinary Infections, Dr. A. H. Paine. Five minute discussions: In Orthopedics, Dr. H. L. Prince; In Obstetrics, Dr. J. P. Quigley; in Pediatrics, Dr. N. G. Orchard; in Neurology, Dr. E. L. Hanes; in Cardio-Vascular Diseases, Dr. C. C. Sutter; in Rectal Diseases Dr. C. Reitz. General discussion. William I. Dean, M. D., Chairman; Leonard W. Jones, M. D., Secretary.

The Buffalo Academy of Medicine has held the following meetings since last reported: Section of Surgery, Feb. 7, discussion of certain borderline problems: A, Cholecystec-

tomy vs. Cholecystostomy; B, Treatment of Gastric and Duodenal Uleers; C, Relationship of the Thyroid to Exophthalmic Goitre. Stereopticon and motion pictures illustrating certain points in Surgeial Technic, Dr. George W. Crile, Cleveland, Ohio. Dr. F. M. O'Gorman, Chairman; Dr. J. B. Cross, Secretary.

Section of Medicine, Feb. 14. Pneumococcic Peritonitis in Infancy and Childhood, Isaac Abt, M. D., Prof. of Diseases of Children, Northwestern University Medical School, Chicago. E. A. Sharp, M. D., Chairman; H. Mead, M. D., Secretary.

Obstetric Section, Feb. 21. Labor in Subnormal Pelves, Dr. F. C. Goldsborough. Discussion will be opened by Dr. Van Peyma. I. W. Potter, M. D., Chairman; H. K. DeGroat, M. D., Secretary.

PERSONAL

Dr. F. William Welch of Buffalo was injured Feb. 1 by a collision between his auto and a lumber wagon, the tongue of which penetrated the side of the auto. He was confined to bed for five days but has fully recovered.

Dr. John T. Harris has succeeded Dr. Wm. Warren Britt as Health Officer of Tonawanda, at a salary of \$800. Dr. Britt held the position for several years.

Dr. George E. Vincent, President of the University of Minnesota, has been elected President of the Rockefeller Foundation. He will assume office May 1, 1917, and will serve for three years.

Dr. R. M. Root of Buffalo left Feb. 9 to spend the rest of the winter in Florida.

Major N. G. Russell, M. D., of Buffalo, left Feb. 9 for a rest at Old Point Comfort.

Dr. Leon Hamilton was operated upon for appendicitis Feb. 10.

Dr. P. A. McCreary of East Aurora returns from Florida the middle of March.

The following Buffalo physicians returned with the 74th Regt. Feb. 20: Capt. Arthur C. Schaefer, First Lt. G. McKay Hall, First Lt. Carlton E. Wertz, First Sergeant A. C. Callahan.

OBITUARY

Alexander Bailey, M. D., died Dec. 24, near Morocco, Ind., aged 96.

Dr. Asa S. Couch, Hahnemann of Philadelphia 1855, died in N. Y. City, Feb. 1, aged 81. The remains were interred at Fredonia, his late home, with Masonic honors.

Dr. John A. Hoffmeyer, Buffalo 1880, died at his home in Black Rock, Buffalo, Jan. 25, aged 63, of heart disease. He was born and spent all his life in Black Rock.

Dr. Joseph Allen Osmun, Jr., Buffalo 1916, died at the Buffalo General Hospital, of pneumonia, Feb. 8, after an illness of less than a week. He was born in Newark, N. J., 1894 but moved to Whittier, Calif., some years ago, with his parents and graduated from Leland Stanford Jr. University. While studying at the University of Buffalo, he joined the 65th Reg. and went with this after its conversion into the 3d Artillery, to Camp Whitman. He was injured there, so as to be unable to accompany the regiment to Texas, and returned to Buffalo. He is survived by his father, also a physician. The remains were taken to Newark for burial.

Dr. Caroline Osborn Koenig, Buffalo 1904, of Buffalo, died at the Hahnemann Hospital of Rochester, Jan. 28, of pneumonia, after a brief illness. She was the classmate and wife of Dr. Edward C. Koenig, the Roentgenologist, the former home of both having been Tonawanda, where the funeral was held.

Dr. Otto Appley, Buffalo 1880, a practitioner of Damascus, Pa., died at the Deer Park Sanitarium, Port Jervis, N. Y., late in January, after an operation. He was 65 years old.

Referring to the obituary notice of Dr. "F. S." Kaynor, a graduate of Geneva Medical College, in Amea, Ia., Dec. 22, at the age of 95 (see Feb. issue), Dr. B. P. Hoyer of Buffalo, his grand-nephew, contributes the following additional notes: The initials should be P. P. and not "F. S." Dr. Kaynor having been named for his uncle-in-law, the late Dr. Peter P. Murphy of Royalton, N. Y., with whom he subsequently studied medicine under the old system of preceptorship. Dr. Kaynor was born in Herkimer Co., N. Y. He was a maternal uncle of the late Frederick F. Hoyer, long a practitioner of Tonawanda, where he died Aug. 16, 1912, aged 91 (see Sept. 1912 issue) but the uncle and nephew were of almost exactly

the same age. Dr. Kaynor moved to Royalton, N. Y. when a boy. Uncle and nephew began their medical studies in the same class at Geneva Medical College but, after the first session, Dr. Hoyer engaged in other work for a year or two and graduated at the University of Buffalo in 1849 while Dr. Kaynor continued at Geneva where he must have graduated about 1847 or 1848. Dr. Kaynor practiced for a short time at Newfane and Rapids, N. Y., before moving west. It is impressive that both uncle and nephew, playmates and for part of their medical studies classmates, should both have lived past the age of 90.

Dr. Andrew Benjamin Knisley, Victoria of Toronto 1885, died at his home in Buffalo Jan. 10, aged 58.

Dr. Charles C. Dellenbaugh, Buffalo 1859, died at his home in Portland, Mich., Dec. 25, aged 82.

Dr. Stephen Elmer Palmer, Univ. of Mich. 1872, died at his home in Elmira Feb. 9.

Dr. Eugene Adelbert Chapman, Buffalo 1862, died at his home in Stafford Springs, Conn., of cerebral haemorrhage, Jan. 29, aged 77. He was a veteran of the Civil War and subsequently Captain and Asst. Surgeon in the U. S. Army, serving as quarantine officer at Brazos, Tex., in 1865. He resided for many years at Henderson, Jefferson Co., N. Y., being postmaster in 1872-3, coroner in 1870 and 1886, county clerk 1900-1906.

Dr. Frederick J. Harter, P. & S. (Columbia) 1880, died at his home in Herkimer, N. Y., of pneumonia Jan. 20, aged 61.

Dr. A. M. Straight, Cleveland Medical College (Western Reserve) 1870, Bellevue 1874, of Bradford, Pa., died at his residence in Barondale, a suburb of Bradford, Feb. 19, aged 70.

Dr. James M. Jenkins, Syracuse 1875, died at his home in Auburn Feb. 3, aged 67.

Dr. William W. Smith, Bellevue 1871, died at his home in Avoca Feb. 4, aged 71.

Dr. Cral von Arx Schneider, Cleveland Homoeopathic 1904, Assistant Supt. of the Gowanda State Hospital, died at that institution Jan. 29 of typhoid fever.

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Number 9

ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Gall Bladder Surgery—Shall We Drain or Remove.*

DR. CHARLES W. HENNINGTON, Rochester.

Very likely many of those present will attend the Clinical Congress of Surgeons to be held at Philadelphia next week. It is noteworthy that one entire evening will be given over to a discussion of the subject here proposed. The principle speakers are: Finney of Baltimore, Charles Mayo of Rochester, Fred Lund of Boston, and Da Costa and Deaver of Philadelphia.

A large number of articles upon gall bladder surgery have been appearing in the various medical journals of late. It is significant, therefore, that this subject of the relative merits of drainage or removal should have been given so important a place upon the program. All this indicates to me that there is still the greatest diversity of opinion as to which is the operation of choice in given classes of cases. That our practice will soon crystallize seems to me very likely, and this also adds to the importance of the discussion going on at the present time.

Since gall bladder surgery began, these two operations have been recognized. From the historical point of view, mere drainage of the abscess was, of course, the earliest operation. In fact nature herself not infrequently performed this obvious measure unassisted. Sometimes the perforation was external but more often it occurred into some neighboring organ, most often the intestines. Yet very early after surgical intervention began the removal of the gall bladder was proposed and carried out. Soon, however, the drainage operation, because of its safety, was recognized as the one of

*Read at the Medical Association of Central New York, Buffalo, Oct. 19, 1916.

choice, and continued so for many years. It is only of late that cholecystectomy has again come to the front. The larger number of articles favor cholecystectomy. A not inconsiderable number however continue defending the merits of cholecystostomy as the standard method in the largest number of cases. The practice in the various clinics throughout the country is far from standardized.

Recently, in order to throw further light upon this subject, Donald Guthrie of Sayre, Pennsylvania, sent out a questionnaire of seven very well selected points to the various prominent surgeons, and received 45 replies. He presented the results at a meeting of the Section in Obstetrics Gynecology and Abdominal Surgery at the Detroit meeting of the A. M. A. Subsequently the paper was published in the Journal of the A. M. A., Aug. 26, 1916.

As his study referred more particularly to the leaders of the profession, I thought it would be of interest and value to discover what the feeling was among the average practitioners of surgery. With this object in mind, I so arranged a program for the Surgical Section of the Rochester Academy of Medicine, of which I happen to be the chairman. Of course it is only too evident that what is the established and successful practice of a clinic, such as that of the Mayos at Rochester, Minn., may not be entirely feasible and successful, as practiced by the various operators in the various hospitals in a city such as Rochester, N. Y.

So at our meeting, held last week, we used the same seven questions propounded by Guthrie. The various men on the program were asked to discuss them from their own point of view, as a result of their own experience. These various papers, or talks, were all concise and to the point. As the seven questions had been written upon a large blackboard, placed before the meeting, there was an animated discussion. Thereupon, in order to complete and sum up the discussion, Dr. Guthrie had been invited to come and personally give us the results gathered from his studies of the opinion of 45 leading American surgeons. I believe the meeting proved a profitable exercise for all there present. In fact there were some points brought out which I consider of sufficient value to venture to bring before you here.

The seven questions were:

1. What percentage of cases of cholecystostomy have had a recurrence of trouble?
2. Are you performing cholecystectomy more frequently than in the past?
3. Have the results been better than when simple drainage was used?

4. In what cases do you consider cholecystectomy the operation of choice?

5. What are the contra-indications against its employment?

6. As a rule, how do you treat empyema of the gall bladder?

7. How does the mortality of the two operations compare?

(1). A definite percentage of recurrence after cholecystostomy seems inherent and unavoidable. Guthrie concludes from the study of the replies he received, that the actual percentage of recurrence is probably about 8% or 9%. It must be recognized also that cholecystectomy, even in favorable cases, is not entirely free from subsequent trouble. One of our local men urged that more prolonged drainage after operation might actually cure many a gall bladder, which another operator might deem necessary to remove. Another (myself in this case) brought out the point that recurrence was not necessarily to be charged to the operation itself, but due to some inherent tendency of the patient toward the formation of gall stones or biliary sand. That these recurrent attacks, like the preceding ones, were due to a hypercholesterinaemia dependent upon faulty metabolism. That by making the analyses of the blood and giving strict attention to diet, the re-formation of stones could be avoided. This refers to Aschoff's theory of gall stone formation. These individuals retain their lipoids and the bile becomes saturated with cholesterin, leading to a sudden precipitation of stones. Only when stones on sectioning show concentric layers of deposit should the cause be assigned to inflammatory processes of the gall bladder. After operation a physiological chemist should make repeated examinations of the blood (only 2 c.c. from the ear is required) to determine the percentage of cholesterin. Guided by these tests the diet of eggs, cream, butter, all fats, meat and fish should be reduced. Only vegetables, cereals, sugar and skimmed milk being allowed in abundance.

(2). Cholecystectomy is being done more frequently than in the past, but evidently the proportion compared with cholecystostomy is small, and rightly so. It was thought that the Mayo proportion in 1915 of 915 ectomies to only 60 ostomies, was never applicable to a community like Rochester, N. Y., because the nature of the cases was very different. This was discussed in detail. Suffice it to say, that Mayo conclusions, as to such a matter are not necessarily absolutely applicable to another series of cases, occurring normally to any one community. The recognition of the gall bladder as a focus of infection leading to infections elsewhere than in its immediate vicinity, and leading to degenerative changes

in other important organs, would strongly favor removal in many instances.

(3). Whether the results have been better with removal than drainage really depends upon whether the correct indications or contra-indications were observed. That group of gall bladder cases in which some operators do one operation and others do the other operation should be carefully studied from large series of cases in which one or the other operation was done under otherwise relatively similar conditions. Only in this way can the relative merit of the two operations be determined. This difficulty of finding an exact and safe basis for comparison would seem obvious, but evidently is often overlooked by advocates of one or another method of treatment.

(4). Cholecystectomy should be considered indicated in disease of the gall bladder wall and in damage to the cystic duct. These chronic thick-walled gall bladders may be either small or large, and with or without stones. Early cancer limited to the gall bladder and gangrene of the gall bladder are definite indications. The damage to the cystic duct may be either actual stricture or potential stricture, due to injury by a stone of such a degree as to make subsequent stricture probable. This indication is sometimes stated as cystic gall bladder or hydrops of the gall bladder, but obviously the real lesion is obstruction of the cystic duct. An occasional indication for removal is found in extensive perforation or laceration.

(5). The contra-indications against cholecystectomy are associated pancreatic disease, associated disease of common duct involving its patency, and associated disease of the smaller bile passages. Pancreatic disease must be treated by extremely prolonged drainage of the gall bladder. The patency of the common duct must be established before removal of the gall bladder by passing a probe downward into the duodenum. A general cholangitis is often difficult to determine and is a source of anxiety and annoyance.

Many conservative operators class acute empyema as a definite contra-indication. Not all however.

Certain **technical** difficulties are contra-indications to cholecystectomy, such as great obesity of patient or peri-hepatic adhesions, both making good exposure impossible. Oedema of gastro-hepatic omentum with inability to recognize the ducts is a contra-indication of this type.

Further contra-indications are **inexperience** of the operator and especially of the anaesthetist; one who may not appreciate that manipulations about the liver may cause straining and coughing even in deep anaesthesia.

Finally desperate condition of the patient forms an absolute contra-indication.

(6). The treatment of empyema of the gall bladder offers diverse views. As a rule, however, cholecystostomy is preferred. In fact in Guthrie's answers, 34 out of 44 favor it. Some so strongly that they consider acute empyema a contra-indication to cholecystectomy. Without any doubt, however, a removal may often be done in individual instances. It seems safer to attempt it in chronic empyemas. A two-stage operation solves the difficulty, namely, first drainage then removal.

(7). As to the comparative mortality of the two operations. With very experienced operators, at their own well conducted clinics, the difference in mortality is very slight, probably below 2%, for either operation. But with the operator of more limited experience, and more limited advantages as to assistance, facilities, etc., cholecystectomy may have a very high mortality. The sources of dangers are shock, haemorrhage from cystic artery, or from cut liver surface, and damage to common or hepatic ducts.

Conclusion. Thus have I tried to summarize as much as possible. I hope that I do not give the impression that there were no differences of opinion, for on the contrary, such diversity was evident on each point. My endeavor has been to sum up in a constructive way. Unavoidably my own opinions could not be suppressed in this effort, and so I crave your indulgence..

633 Park Ave.

Shell Bullet Enveloped in Great Omentum and Movable in Hernial Sac. L.-C. Bailleul, *Le Prog. Med.*, Dec. 1916. (The non-surgical history of the case is so inspiring that we make no apologies for including it in the abstract). Albert, a colonial soldier, aged 36, was wounded Aug. 30, 1914, about 14½ o'clock, in the right infrascapular region. He continued firing for a quarter of an hour, then went to a neighboring house to have the wound washed. He left this shelter to carry a wounded comrade to a place of shelter. At 17½ o'clock, he was captured by the Germans but escaped half an hour later and reported to an ambulance station. He recovered rapidly, without peritoneal reaction and rejoined his depot at Marseilles Oct. 3, soon returning to the front. He served till Jan. 9 when he noticed a left inguinal hernia. Radical operation was performed Jan. 30, during which the ball was found surrounded by fringes of great omentum. He was discharged after an uneventful convalescence, Feb. 22.

Lithium Springs.

DR. FELIX VON OEFELE, New York.

Springs with over one-thousandth part of Lithium chloride to total solids are springs with a remarkable amount of lithium and springs above 1 per cent. of total solids are real lithium springs.

The name of lithia spring is much abused. Hendrixson is right in emphasizing that 300 liters of a certain claimed American Lithia water are necessary to get a single medicinal average dose of lithia. But anyhow the therapeutic effect of lithia dissolved in natural mineral waters is stronger than common lithia salts. And the amount of potassium salts present works in the same direction. Lithium urate is the most soluble urate. But the solubility of urate of potassium is not much less. Potassium salts are, as a rule, present in mineral waters in much larger quantities than lithium salts.

Lithium salts are calculated in different ways. The very low atomic weight causes very different figures. I will calculate lithium as lithium chloride where no other salt is mentioned.

Lithium chloride is present to total solids in the following European springs:

Bonifaciusbrunnen at Salzschlirf, 2.0%.

Baden-Baden, 1.9%.

Assmannshausen Thermal Water, 1.8%.

Koenigsbrunnen at Wildbad, Wuerttemberg, 0.7%.

Baden, Switzerland, near 0.6%.

Kreuznach, different springs, near 0.5%.

Natalienquelle at Franzensbad, near 0.3%.

Kissingen, different springs, near 0.3%.

Kronenquelle at Salzbrunn, near 0.3%.

Wiesbaden, Kochbrunnen, near 0.3%.

Bilin, 0.15%.

Homburg, all the springs, 0.15%.

Nauheim, different springs, 0.15%.

Neuquelle at Franzensbad, about 0.1%.

Karlsbad, different springs, about 0.1%.

Kaiserquelle at Aachen, 0.07%.

The lithium present is also emphasized at Duerkheim, Assmannshausen, Tarasp, Selters, Ems, Marienbad, Wheal Clifford, Bad Orb, Sciacca and Salso Maggiore. A spring near Redruth in Cornwall, England, claims for 24 hours 400 kilogram chloride of lithium.

Some rocks contain lithium. The presence of 1 to 10% lithiumoxyd characterizes a rich lithium ore. Lithium and

its salts are soluble with difficulty. Where the percentage of lithium to total solids is really high, the spring is sub-mineralized as a rule.

The figures of chloride of lithium are about six times the figures of metallic lithium.

In the above European list, the following only, real lithium springs: Salzschlirf, Assmannshausen and Baden-Baden.

AMERICAN real LITHIA SPRINGS.

Ballardville Lithia Springs, Middlesex County, Massachusetts, with 0.0417% total solids including 10.0374% carbonate of lithium corresponding 90% of total solids. Spodumene and lepidolit, important lithium ores, are found in the neighborhood. Assmannshausen, Germany, claims to be the richest lithium spring of Europe and contains 0.0028% lithium salts calculated as bicarbonate to the water.

Nye Lithia Springs, two miles distant from Wytheville, Virginia, contains two claimed lithia springs and one claimed chalybeate spring. One of the lithia springs has 0.0315% total solids including 0.0109% carbonate of lithium corresponding to 40% lithium chloride to total solids and 1.5% iron and aluminium oxyde. The chalybeate spring has 0.0317% total solids including 0.0027% carbonate of lithium corresponding to almost 12% chloride to total solids and 7% iron and aluminum oxyde.

Geneva Lithia Springs, New York, has 0.3984% total solids including 8% lithium salts. ?? see below.

Harris Lithia Springs, Laurens County, South Carolina, has 0.1899% total solids with predominant calcium sulfat and 2% lithium bicarbonate.

Chadwick Lithia Wells at Cambridge Springs, Pennsylvania, contains 0.0028% lithium bicarbonate corresponding 4% total solids.

AMERICAN SPRINGS with remarkable lithium.

Springs containing from 1% to 0.1% down lithium chloride in total solids are springs with a remarkable amount of lithium. But together with other constituents, this amount of lithium may show some influence. There Cambridge Springs, Pa., Ballston Spa and Saratoga Springs, N. Y., Ashland, Oregon, and many others belong.

Hathorn Springs at Saratoga Springs, has 1.0% total solids.

Geyser Spring at Saratoga Springs, near 1.0%.

Ashland Pompadour Chief Spring, 0.95%.

The springs of Ballston Ppa show about the same relationship as the Koenigsbrunnen at Wildbad.

Ashland New Lithia Spring, 0.53%.

Ashland Old Lithia Spring, 0.44%.

Ashland Artesian Lithia Water, 0.10%.

For springs with less than 0.1% lithium chloride to total solids, it may be interesting to know the presence and amount of lithium for the completeness of the analysis. A further development of scientific balneology may also find these determinations useful for the relationship of different springs. But these small amounts of lithium can not have any influence on the therapeutic value of a spring.

LOW MINERALIZED WATERS with VALID AMOUNT of EARTHS.

Where the carbonate of lime of low mineralized springs exceeds 0.015% or its bicarbonate 0.025% or carbonates of magnesia replace a corresponding part of this amount, springs with less than 0.1% total solids are excepted from listing with the low mineralized springs and are recorded here.

They may be usefully recommended for daily use for all the patients, where leakage of lime is the main symptom of the disturbed metabolism. This dilution with an adequate dissociation more easily replaces the deficit of the lime than a high concentration. The taste is good and refreshing. They are not contrarily indicated for healthy people, but they are harmful for old age and for atheromatosis.

THERMAL CALCIUM CARBONATE WATERS.

Virginia Hot Springs:

Boiler Spring 108°F 0.0737% t.s. 83% earthy salts, 60% carbonates, calcium prevails; for bathing.

Soda Spring 74° F 0.0559% t. s. almost 90% earthy salts, 60% carbonates, calcium prevails; for drinking.

Spout Bath Spring 106°F 0.0580% t. s. over 80% earthy salts, 60% carbonates, almost 5% potassium salts, calcium prevails; for bathing.

Crook eloquently praises these waters without any definite indication and erroneously compares them with Arkansas Hot Springs and with Aix les Baines in France.

Healing Springs, near Hot Springs, Virginia, with four springs 85 to 88° F 97.25% of the spring gases is nitrogen (the springs of Tahonic Mountains are similar):

Old Spring 0.0656% t. s. 75% earthy salts; calcium and carbonic acid prevail.

New Spring 0.0646% t. s. over 75% earthy salts; calcium and carbonic acid prevail.

These springs have more sulfates than Hot Springs and a small amount of ammonium; they claim to be diuretic, somewhat laxative and tonic and are recommended for chronic

congestion of the liver, irritability of the bladder from cystitis, enlarged prostata, in the early stages of Bright's disease and in debilitated states generally.

Warm Springs north of them belongs to the sulphur waters.

COLD WATERS with VALID AMOUNT OF EARTHS.

Eureka Springs, Carroll County, Arkansas, has sixty springs. The best known are: Crescent, Dairy, Basin, Magnetic, Harding, Little Eureka, Sweet, Grotto, Mystic, Oil, Arsenic, Cave and Cold.

The waters of Eureka Springs contain mainly carbonates of lime and magnesia with a small proportion of sulfates and chlorides and are recommended for rheumatism, skin, nervous, renal and bladder disorders, dyspepsia, hay fever and general debility.

Crescent Spring, Eureka Springs, 0.0091% t. s.

Dairy Spring, Eureka Springs, 0.0107%.

Basin Spring, Eureka Springs, 0.0119%.

Magnetic Spring, Eureka Springs, 0.0187%.

Senega Spring at Glen Springs, N. Y., 0.0215%.

Different Springs of Arkansas Hot Springs.

Gray Springs at Cambridge Springs, Pennsylvania, 0.0224%.

Glenn Spring, Tipton County, Tennessee, 0.0352% total solids including over 80% earth carbonates and 14.64 c inch free and half combined carbonic acid gas; claims antacid and mild diuretic property (Wildungen).

Mountain Valley Springs, Arkansas, 0.0353%.

Fauquier White Sulphur Springs, Fauquier County, Virginia, 0.0374% t. s. with predominant earths, almost 10% iron salts. 11 c inch carbonic acid gas and small quantities sulfohydrogen; claims alterative, tonic and diuretic properties; recommended in the various forms of dyspepsia, in intestinal disorders and in liver complaints, in dropsical affections due to renal and cardiac diseases as well as in the early stages of Bright's disease, in neurasthenia produced by overwork, anxiety or other causes, in certain female complaints, notably in menstrual disorders due to anaemia.

Fullerton Spring No. 1 at Cambridge Springs, Pennsylvania, 0.0376%.

Kickapoo Magnetic Spring, Warren County, Indiana, 0.0415%.

Arctic Spring, Trempealeau County, Wisconsin, 0.0425%.

Magnesia Fountains at Cambridge Springs, Pennsylvania, about 0.0600%.

Allouez Mineral Spring at Green Bay, Wisconsin, 0.0648%.

Salvator Mineral Spring, Brown County, Wisconsin, 0.0711%.

Bartlett Spring, Lake County, California, 0.0737%.

Fullerton Spring No. 2 at Cambridge Springs, Pennsylvania, 0.0785%.

SUPERMINERALIZED EARTHY WATERS.

If the earthy waters are supermineralized, Magnesium waters, Calcium waters and Calcium-Magnesium waters are necessary subdivisions.

MAGNESIA WATERS.

Within the earthy waters, the magnesia waters should be preferred for recommendation to old people, the lime waters for children and youth.

Allouez Mineral Springs appears there again. Evidently different analyses calculating monocarbonates and bicarbonates are published.

Concentrating Tubercle Bacilli in Sputum and Urine. Wm. Krauss and J. S. Fleming of Memphis, Jour. of Lab. & Clin. Med. Shake 5 c.c. of sputum and 10 c.c. of 10% sodium chlorid solution thoroughly. Add $\frac{1}{2}$ c.c. gasoline and shake till it is emulsified. Centrifuge at moderate speed till the gasoline forms a clear supernatant layer. Beneath this will form a thin scum containing the bacilli. Centrifuge 10 c.c. of urine at high speed, pour off supernatant urine. To the sediment add 10 c.c. of urine and 1 gram of sodium chlorid. Shake till the latter is dissolved, then add $\frac{1}{2}$ c.c. gasoline and shake again. Centrifuge at moderate speed till a clear layer and scum separate as for sputum. The method is said to be more satisfactory than the antiforming-chloroform method. Instead of the ordinary centrifuge tube, a Babcock milk tube may be used to concentrate the scum. A trace of egg albumin on the slide aids the fixation of the smear.

Skin Reaction for Pregnancy. Ernst Engelhorn and Hermann Wintz, La Clinique, Montreal, July 1916, inoculating placenta extract, noted an inflammatory reaction in all of 70 pregnant women, from the second to the ninth month. A blank vaccination resulted negatively, as did vaccination with placenta extract in 53 non-pregnant women, with a single exception—a woman with a child 6 years old. They believe that with occasional exceptions, the reaction is positive from the 7th week to the 5th day after delivery, otherwise negative.

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A Possible Fallacy in Vital Statistics.

We have called attention in the past to the fact that, if the population of any community is fixed at a decennial census and no allowance made for subsequent changes (which are usually for this country in the nature of a fairly regular increase), ratios of deaths, births, etc., for intervening years will tend to show a gradual fictitious increase, jumping back to an approximately correct figure at the next census year. For some years, it has been the custom to correct this obvious error by estimating the rate of increase of the population according to that actually established by the censuses of the previous decade. It occurs to us, that under present conditions, a very considerable error will follow even this attempt at correction. For instance:

From 1900 to 1910, the population of the country increased from 75,994,000 to 91,772,000—an increase of 15,978,000. The immigration for the corresponding period was 8,805,000 though further allowance must be made for the fact that approximately 20-25% of the immigration is balanced by emigration, not to mention ordinary travel. The latter includes a number of non-emigrant aliens, that is persons of foreign birth, leaving the country but not expecting to return permanently to their former homes. This number is nearly equal in many years, to the expected alien emigration and it is, of course, impossible, to say just what per cent. of the non-emigrants return to this country. At any rate, more than

half of our increase in population in recent years has been accounted for by the gross immigration.

For the 14 years, 1901-1914, the total immigration was not quite 13,000,000, the average for the last ten years being just about a million. It is interesting to note how the war has affected the problem. In 1914 (through June 30), the total immigration was 1,218,480, for the next two years 326,700 and 298,826, respectively. The number debarred and deported showed absolute decrease but relative increase. The emigrant aliens for the fiscal year ending June 30, 1914, numbered 303,388, for the next two years, 204,074 and 129,765 respectively. The non-emigrant aliens for the three years numbered, respectively, 330,467, 180,100, and 111,942. It is certain that practically all of the non-emigrant aliens of the last two years and a large share of those of the first of these three years have remained abroad. There is no doubt but that the net immigration for the last two years has been practically nothing. Incidentally, it may be said that so far as immigration and emigration as ordinarily understood, are concerned, the balance has been strongly outward and that the ultimate balance has been due mainly to immigration from Canada. So far as we can learn, all the estimates of increase of population made since the middle of 1915, the population for which time was partly based on state censuses and largely on estimates for 5 years' increase since the national census of 1910, are on the basis of a total national increase of about 1,600,000 per year. This increase presupposes a gross immigration of about a million a year and a net immigration, of about 800,000 and also that aliens leaving the country with the expressed intention of returning, actually do return for the most part. So far as we can estimate, we are short about $2\frac{1}{3}$ millions of the suppositious increase from without and we predict that the census of 1920 will show a shortage of about half the increment estimated for the decade from 1910.

Moving.

Think carefully before you move to:

A district entirely out of convenient reach of your present practice;

The country from the city, or vice versa, unless you are somewhat familiar with the different conditions or are young enough to adapt yourself to them;

A residence which necessitates the maintenance of a separate office, at a considerable distance, if your practice is

largely emergent and, in any case, unless you have thoroughly considered the loss of time and increased expense;

A big house, deserted by an aristocratic family, unless you are sure that you are not buying at the beginning of an exodus of the former inhabitants of the district and the transition period of boarding and rooming houses which usually lasts for many years before business comes in;

A house, all right in itself but off of traveled routes.

A district promising well for business purposes but involving such environment and so late office hours that, however successful you may be, success will be untranslatable into proper enjoyment of life;

A district not sufficiently central for developing a special practice if that is your object;

A location too far down town for a reasonable chance of building up a stable, desirable general practice, if your inclinations and abilities are of this nature;

A neighborhood in which racial, religious and other affiliations are so strong as to constitute a handicap to one not included in these affiliations;

A district well adapted to your desires but in which the population is fixed in its professional allegiance;

A "growing section" which may not grow;

In short, don't drop a reasonably satisfactory certainty for a gamble.

The Small Hole for the Kitten.

There is a story of a Greek sophist who cut a hole in the lower part of his door to accommodate his cat and, beside it, a smaller hole so that the kitten could also go in and out at will. Somewhat the same principle is suggested in various ingenious medical propositions, e.g. to administer a thread soaked in congo red and partly inclosed in a capsule containing a "heavy powder giving a neutral reaction." After fifteen minutes, the thread is withdrawn, being colored dark blue or violet according to the amount of HCl in the stomach. If it is still red, "this shows anacidity (sic) or that the capsule has stuck somewhere on the way." There are various other factors that may produce a negative reaction when there is really HCl present, as the dilution or possibly neutralization by mucus in the oesophagus, and saliva. Congo red is not a thoroughly satisfactory indicator of inorganic acids but, even if dimethyl-amido azo-benzol were substituted—this being the best direct indicator for free HCl thus far discovered—the test would still be fallacious unless strongly

positive and, even then, we should be in the position of the curious man who asked how a stranger had lost his leg. The latter promised to tell him if the former would promise not to ask any more questions and then gave the explanation that his leg had been bitten off. We would still be curious to know how much HCl was present.

In our experience, patients object to threads, and sounds as much as to the stomach tube. Why not cut one hole in the door for the cat, even if it is a little larger than that needed for the kitten?

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following. Pamphlets, quarterly and similar periodicals, reports, transactions, etc., will, as a rule, merely be mentioned.

A Reference Handbook of the Medical Sciences; Embracing the entire range of Scientific and Practical Medicine and Allied Science. By various writers. Third Edition, Completely Revised and Rewritten. Edited by Thomas Lathrop Stedman, A. M., M. D. Complete in eight imperial quarto volumes. Volume VII, 998 double column pages, illustrated by numerous chromolithographs and four hundred and sixty-nine half-tone and wood engravings.

Our readers will be pleased to know that this monumental work is nearing completion, Vol. 8 being already partly in type. This is the third edition, the first having appeared late in the 80's. The earlier editions have, however, been used merely to suggest the arrangement and approximate proportionate bulk of matter in different volumes as entire sub-branches of medicine have been developed since the first edition and as nearly all phases of the subject have required treatment from the standpoint of modern investigation. We need not dwell on the magnitude of the Handbook but, from personal knowledge, we think it worth while to pay a tribute to the chief editor, Dr. Thomas Lathrop Stedman. Obviously, a work of this nature would overtax not only the time but the special information possible to any single author but the critical knowledge of details possessed by this man has really enabled him to act as an editor in the true sense of the word and not merely as an executive in charge of the arrangement of the work of others.

Materia Medica and Therapeutics, including Pharmacy and Pharmacology; Reynold Webb Wilcox, M. A., M. D., LL.D., D. C. L., New York; P. Blakiston's Son & Co., Philadelphia. 9th edition, revised in accordance with the U. S. Pharmacopoeia IX. 860 pages, \$3.50.

This is divided into two parts, I. *Materia Medica* and Pharmacy, II. Pharmacology and Therapeutics. Part I includes the usual preliminary consideration of definition and pharmacy, and the general divisions of the inorganic and organic materia medica. The former is discussed according to chemie classification, the latter is divided into synthetics, and drugs of vegetable and animal origin respectively. Drugs of vegetable and animal origin are subdivided according to principal physiologic actions. An appendix to this part gives the botanic and zoologic classification of drugs. Part II includes definitions, modes of administration, posology and discusses the relation between chemie constitution and physiologic action and the theories of ions and osmotic pressure. Under 16 general divisions, the action of drugs is then considered according to a logical physiologic classification. The final division, "Drugs which have no marked therapeutic properties" is, in a sense, disappointing. It deals with flavoring and coloring substances, etc. We rather hoped for a polemic attacking a considerable number of drugs well known by name and which justify considerable therapeutic nihilism. The volume is concluded with an index by disease names, suggesting reference to drugs that might be available.

The Breast: Its Anomalies, Its Diseases and Their Treatment.

John B. Deaver, M. D., LL.D., Sc. D. and Joseph McFarland, M. D., Sc. D., assisted by J. Leon Herman, B. S., M. D., all of Philadelphia. P. Blakiston's Son & Co., Philadelphia. 8 colored plates, 227 illustrations, 724 pages, \$9.

People generally, perhaps even the medical profession, think of the breast as a female organ of lactation, subject to a few pathologic disturbances and affording some diagnostic signs in connection with pregnancy, and liable to be affected with cancer—or rarely with some other process which is practically to be considered and treated as cancer—later in life. Even those who realize that this is a very imperfect conception, will probably be surprised at the large volume issued without padding, and the numerous conditions to which the breast is subject. Even from the practical standpoint, the breast is not to be considered as exclusively a female organ. Gynaecomastia is a large and interesting sub-

ject but the male organ quite often gives trouble and requires intelligent treatment. Supernumerary mammae and mamillae are frequently observed and are considered at length in this book. In glancing over the reference list we are ashamed to be found missing—not from any sense of wounded pride but simply because after having observed and noted these conditions in physical examinations for many years, we have never had the energy to collate and publish the notes. It is not at all likely that our own observations have been of unusual value and we mention the matter to illustrate the fact that if the profession generally noted such anomalies and reported them, the available literature would be on a far larger scale than at present. The notes on comparative physiology and anatomy are interesting but not extensive.

We would urge that this book be generally read, especially the parts dealing with the hypertrophies, non-suppurative infections and non-cancerous tumors and various other conditions with which the profession is not so familiar as it should be.

A Brief Report on Mental Defectives in Buffalo and Vicinity.

Pamphlet comprising a report to the Vassar Club by a committee of its members.

This is a study, largely along lines of heredity, necessarily very incomplete but suggestive of the need of thorough study of the problem and of appropriate provision for these unfortunates. It is commended to the profession generally and especially to neurologists and those interested in medical sociology. The Chairman of the Committee is Mrs. Lucien Howe of Buffalo.

The University of Buffalo Bulletin. Dept. of Arts and Sciences. Published quarterly. The Jan. 1917 issue is No. 1 of Vol. 5.

This serves to call attention to the fact that while the University is still in need of large funds and is not yet in a position to offer a full college course, it is a condition and not a theory; that it is conducting on an adequate basis, the first two years of a college course and has progressed to a considerable degree toward the object of providing higher education in Buffalo.

Report From the Department of Pathology and the Department of Clinical Psychiatry. Central Indian Hospital for the Insane, 1913-14 and 1914-15, Vol. 6.

This is issued under the superintendency of Dr. Geo. F. Edenharter, (Indianapolis), and contains not only the usual executive and statistic reports but scientific studies of cases of great value.

Clinical and Laboratory Technic. H. L. McNeil, A. B., M. D., Galveston. C. V. Mosby Co., St. Louis. 88 pages illustrated, \$1.

This is a brief, practical treatise including history taking and physical examinations, and routine laboratory methods for urine, blood, sputum, stomach contents, etc. Considerable attention is given to the Wassermann and gonococcus fixation tests. The book is valuable especially for what it omits in the way of methods beyond the time and ability of the practitioner. It is a codification of what the physician may do and really ought to do himself if he would be thorough up to the practical limit.

Practical Uroanalysis. B. G. R. Williams, Director of the Wabash Valley Research Laboratory. C. V. Mosby Co., St. Louis, 142 pages, illustrated, \$1.25.

After discussing the general properties of normal urine, the work is divided into chemical (qualitative), quantitative, microscopic and bacteriologic methods. It is eminently practical and written especially for the physician who wishes actually to put theories into operation. The discussion of indicans, other coloring matters and chromogens is especially to be commended and the warnings against diagnosing rare conditions, not yet thoroughly understood, should be heeded.

Little Lessons in Scientific Eating. Eugene Christian, President of the Corrective Eating Society, 450-460 Fourth Ave., N. Y. Published by the Society. Fasciculus of 24 lessons, each separately bound as a pamphlet. Price not stated.

The author is to some degree a vegetarian, that is, while recognizing milk, eggs, butter, etc., as proper foods, he would exclude meats. The lessons are intended for lay guidance and, consequently can not fulfill to the degree that many would require of the definition, the term "scientific." Waiving the question as to vegetarianism, the lessons seem to present as well as practical, under these circumstances, the general principles of dietetics and while it must be admitted that no propaganda addressed to the laity can satisfactorily solve the problem of adequate, economic and hygienic diet,

without invividualized guidance, it seems to us that these lessons will go a long way toward correcting the present unintelligent use of foods by the people at large.

TOPICS OF PUBLIC INTEREST

Army Medical Corps. Carl Scheffel of Brookline, Mass., *Med. World, Meh.*, analyses the corps with regard to college of graduation. 83 colleges are represented, 35 extinct, the rest Class A except the National University, Class C, represented by a single captain. According to the 1916 American Medical Directory, the corps contains beside the surgeon-general, ranking as brigadier, 14 colonels, 24 lt. colonels, 104 majors, 228 captains, 49 1st lts. and 89 from the medical reserve corps on active duty: total 508. The routine promotion at the end of 4 years accounts for the preponderance of captains, along with the fact that only 11 candidates were commissioned in 1913, 15 in 1914 and 12 in 1915.

The statement that the medical reserve corps is to go out of existence this year, is literally correct but misleading. Officers of this corps will, if they desire, be transferred to the more general Officers' Reserve Corps up to June 3, 1917, when the former goes out of existence, and further appointments of medical reserve officers will be made. Really, instead of doing way with medical reserve officers, provision will be made for a still more efficient reserve. Commissions will be issued for 5 years, subject to re-examination and re-commission. Attendance at camps of instruction for 15 days a year will be compulsory upon reserve officers, the government paying transportation and subsistence. They will also be compelled to take a correspondence course of instruction. Medical reserve officers above the grade of 1st lt. will not be liable to active duty in time of peace but 1st lts. will be. In war, any reserve officer may be ordered to active duty. A reserve officer cannot hold a commission in the National Guard.

The Surgeon General, U. S. A., announces that examinations for commission as first lt. in the active medical corps will be held on the first Monday of each month. There are at present 230 vacancies and after July 1, there will be 222 additional vacancies. Appointees made before July 1 will be ordered to the Army Medical School for a special session beginning July 9. The regular session begins Oct. 1. Applicants must be between 22 and 32, and a year's experience as interne is required but graduate physicians serving an in-

terneship and who pass the examination, will be allowed to complete their internship before going to the Army Medical School.

National Wealth. Estimated total 1916, 230 billion dollars, about \$2,255 per capita, or \$9,000 for each adult male. Of this, a little over 1% is in gold, minted or ready for coinage—\$27 per capita, 2,741,000,000 in all. The total per capita money of all kinds is stated to be \$43. (probably implying that paper money is counted only as actually backed by gold and silver deposits).

New Hospital for Batavia. The Sisters of Mercy of Buffalo have accepted the double house at 16 Bank St., bequeathed by Miss Rose A. Jerome. It will be remodeled into a 50-bed hospital to be known as St. Jerome's.

Keeping Intact the Practices of Volunteer Medical Officers in Case of War. The suggestion is made by the Surgeon-General's Office that city, county and state medical societies formulate some plan by which, if the reserve medical corps is called into active service, the practices of the members may be kept intact and handed over to them after the expiration of their service. This is a good suggestion. Something after this plan was carried out during the Spanish-American War. It may be said, however, that there are certain practical obstacles to be considered. Such definite professional clienteles as formerly existed in this country and are, at least talked and written about, in England, have almost ceased to exist in many parts of this country. They certainly do not exist for surgeons and other specialists. The most dependable practices exist in small villages and isolated parts of some cities and are based on lack of competition rather than personal affiliation. In such instances, a newcomer entering the field would probably hesitate to do so merely as a locum tenens. In many instances, too, it might reasonably be expected that the physician for whom a practice was held, would never come back to it—not necessarily implying his death but his permanent attachment to the army, as happened in many cases in the Spanish-American War or his selection of surgery or choice of a different field of private practice. However, in spite of the impracticability of carrying out the suggestion in the literal sense in many cases, the spirit of the suggestion, that a man should not suffer unduly from competition arising on account of his patriotism, certainly should be observed. Possibly the government itself can co-operate, by providing

that a medical officer, retained for a longer period than that of a fairly long vacation which would not affect his private practice seriously, shall not be discharged without other cause than cessation of hostilities, except after a rather long notice, or with the option of transfer to the regular service, or he might be allowed to compromise his period of notice by accepting part pay in advance, with immediate leave.

To Complete Letchworth Village. Joseph H. Choate, President of the State Charities Aid Assn. has asked the legislature for an appropriation of a million to complete the work at Thiells, Rockland Co. It is estimated that there are 33,000 feeble minded persons in N. Y. State outside of the city, of whom only 5,399 are in institutions intended for them while 4,500 are in jails, prisons, poor houses, etc. Of the 23,000 uncontrolled, 6,600 are women of child-bearing age. Letchworth Village, as contemplated in 1907, was to care for 3,000 persons. At present, only 340 are provided for. Meantime, N. Y. City has increased its accommodations at Randall's Island from 778 to 2,021.

The National Board of Medical Examiners will hold its next examination in Washington during the week of June 13. Col., Del., Ia., Ky., Md., N. C., N. H., N. D., Pa. already recognize its certificate and favorable legislation is pending in 12 other states. It admits to the Army, Navy and the Graduate School of the University of Minn., including the Mayo Foundation.

Requirements of Collegiate Work for Medical Licensure. 1 year already operative: Conn., Kas., Utah, Vt. 2 years already operative: Col., Ind., Ia., Minn., N. D., S. D. 1 year, applying to graduates of 1918-21; no legislation as to 2 year requirements: Ark., Calif., Ill., Ky., Mich., Miss., N. C., Pa., Tenn., Tex., W. Va. 1 year applying to graduates of 1922, no legislation as to 2 year requirement: N. Y. 1 year applying to graduates of 1918-22, with requirement of 2 years by 1922: Ariz., Ia., Md., N. H., N. J., R. I., Va., Wash.

Fly Catching. Bull. 108 of the U. S. P. H. Service, details experiments by Earle B. Phelps and Albert F. Stevenson. Of sticky preparations, those containing castor oil are far superior to those containing other oils, white rosin being used in all cases in addition. 6-inch squares caught 35, 38 and 61 flies as compared with 0-8 on other spreads. Three commercial papers, not analysed, caught 25, 32 and 55 flies. Solutions of muscicides are considered somewhat superior

and the following is advised as practically non-toxic to children and pets: 1% sodium salicylate; place in a tumbler, cover with a projecting sheet of white blotting paper, place a saucer or small plate on top and invert; a match inserted under the edge of the tumbler favors the feeding of the blotting paper with solution.

Military Raw Material. The N. Y. Committee on National Defense gives the following statistics: 30 million males in gainful occupations (the number of gentlemen of leisure in this country being negligible), of whom 21 million are between 18 and 45; 9 million unmarried; 10½ million physically fit for service. Note: Approximately, any country has 50% of its population male and 50% adult, about 20% being adult males of military age within wide limits. However, physical incapacity and the demands of industries that must be maintained even for war purposes, reduce the available militia to about 10%. In the Revolution and the Civil War, about 11% of the total population was enlisted, but not at any one time, and in the former the actual military service of the great majority was quite brief. For the four years of the Civil War, the total military deaths amounted to very nearly 10% of the forces or 1% of the population.

The American Red Cross reports a greater degree of efficiency than for any similar organization at any previous occasion, being able to care for an army of a million on a few days' notice. The organization consists of: 26 completely equipped army and navy base hospital units, with a total of 1250 nurses and 599 nurses' aids; a base reserve of 415 nurses and 525 nurses' aids; 31 partially complete navy detachments of 20 nurses each; 115 emergency detachments; 120 expert instructors in surgical dressings.

County Tuberculosis Hospitals. 33 of the 57 counties of the state outside of the city, have hospitals in operation or provided for. These contain 81.3% of the up-state population so that the urgency of the matter in the remaining 27 counties is obviously not so great. 27 hospitals are in use and 12 more authorized; 1799 beds available and 1,279 more authorized. When the state campaign began in 1907, there were 2 hospitals with 154 beds.

The Tres Palacios Club. This is being organized by Dr. Wm. F. Waugh of Palacios, Texas. It will occupy a square mile, and have 100 members, each owning 5 acres, the remainder being used for a club house, golf links, etc. The en-

ture membership fee is \$1000, payable in small installments. An artesian well supplies water, fruit trees of various kinds are to be planted and the 5 acre tracts should yield a considerable revenue. Various community privileges will be arranged as desired. The club will thus be available not only for vacations but for permanent residence and, solely from the economic standpoint should appeal especially to physicians wishing to retire.

The Wicks-Grant Bill introduced into the N. Y. legislature Feb. 15 is intended to carry out the joint report to the Governor, on Foods and Markets. It consolidates the present Depts. of Agriculture, Foods and Markets and Weights and Measures and transfers the functions of the Health Dept. relating to misbranding and adulteration of food, cold storage, etc. It gives added power to control food supplies, storage and distribution, to control competition and speculative prices, etc., and one of the functions of the new Dept. will be to publish information as to original, wholesale and retail prices. Ample power will be given to deal with such problems as have recently arisen in N. Y. City (and which, we may add, exist elsewhere, except that rioting has not resulted).

Narcotic Convictions. Edward Pring of Buffalo, has been convicted by a federal court of selling drugs and of employing agents for that purpose. He was sentenced to a "year and a day" in the Federal Prison at Atlanta.

Advertising Physician Accused of Fraud by Labor Dept. Dr. A. W. Bender who succeeded to Dr. Henry J. Shireson, now a fugitive from justice, in the conduct of a specialist's office at Main and Exchange Sts., Buffalo, was arrested Meh. 13. He is said to have worked particularly among ignorant foreigners, collecting advance fees for cures declared to be impossible without operation.

A Bill to Repeal the Charter of the Rockefeller Foundation has been introduced by Sen. John J. Boylan and Assemblyman Joseph M. Callahan.

A Theft of Morphine Tablets, presumably by an addict, was reported Meh. 13 by Dr. C. H. W. Auel of Buffalo.

Fatal Ophiophobia. Last May, a little girl threw a dead garter snake at Maggie Paonessa of Niagara Falls. She became violently hysterical and never fully recovered her health, dying Meh. 13. This is one of the most widely spread

phobias, if not the normal state of man and is even shared by the lower animals to some degree. Serious nervous phenomena often develop from it and it should be respected by those who do not have it. Geo. H. Pepper of the Museum of the American Indian of New York City, in a recent lecture before the Buffalo Society of Natural Sciences, described the snake dances of the Hopis and stated that the Navajos attending the dances, took every occasion to spit on the snakes and the dancers as a token of their disgust though, in general, one tribe respects the religious rites of another. He also told of a white man, staying at a Navajo camp who handled a snake and afterward washed himself, using a piece of soap. An Indian woman picked up the soap on a stick and scraped off the surface before putting it back into its place. Most savages are relatively free from ophiophobia, at least in the literal aesthetic sense in which it is observed among more civilized peoples, though most tribes have myths and customs which plainly indicate the universal human tendency toward ophiophobia. It plays a part in most religions, even the Judaic and Christian. It may be remarked that a true -phobia is a horror or dread, not warranted by analysis. Thus photophobia is not included in this category of neuroses. Phthisiophobia though not necessarily warranted, is a fear of genuine danger and hence not a true neurotic -phobia. All true neurotic phobias are, however, based on genuine danger in the ultimate analysis. Whether they depend on hereditary memory or not is another question. Acrophobia, brontophobia, phobia, thalassophobia, arachnophobia, claustrophobia (the correct word not being in use) obviously are based on dangers which might be very real if it were not for circumstances. Ophiophobia is world-wide, according to evolutionists because, in the primitive life of man, the snake was the most insidious and therefore the most dangerous enemy, even creeping into arboreal retreats. While ophiophobia is perhaps even greater with regard to harmless snakes than toward larger, less sinuous poisonous snakes and constrictors, for which the realization of actual physical danger overrides the pure neurotic horror, it is interesting to note that all snakes are poisonous so far as their serum is concerned, even if lacking special glands for secreting the poison and apparatus for injecting it.

Estimate of Total Militia of N. Y. The total population is stated by the Health Dep't at 10,490,680, of whom 2,480,000 are males between 18 and 45. On the basis of rejections for the U. S. Army, the available militia is estimated at 570,000. (It should be remembered, however, that the requirements

for the regular army in peace are rather higher than would be practical for war, and the class of applicants probably includes a disproportionate number of men undesirable for various reasons. We are inclined to believe that at least 2 million men could be raised in N. Y. State if necessary, and 20 million in the whole country.)

Tuberculosis Clinics for Buffalo. Patients will be examined and supplied with sputum cups, etc., as follows:

Health Center No. 1—Located at 1067 Grant street—District bounded by waterfront and Virginia, Niagara, Georgia, Chippewa, Main, Virginia, Delaware, Colvin, Kenmore, O'Neil to waterfront.

Health Center No. 2—591 William Street, corner Stanton—Bounded by William, Fillmore, Clinton, Jefferson, Swan, Pine, Broadway, Fillmore, Walden and city line.

Health Center No. 3—770 East Ferry Street—Bounded by city line and Walden, Fillmore, Broadway, Pine, Genesee, Chippewa, Main, Virginia, Delaware, Colvin, Kenmore and city line.

Health Center No. 4—404 Seneca Street (Welcome Hall)—Bounded by waterfront and Virginia, Niagara, Georgia, Chippewa, Genesee, Pine, Swan, Jefferson, Clinton, Fillmore, William, city line and waterfront.

Clinics will be held every Monday evening 7-8 at all centers, and at No. 1 Wed. 3.30-4.30; No. 2, Tues.; No. 3, Thurs. No. 4, Fri. at same hours. Emergent cases will be cared for on notice to the Div. of Tuberculosis, Dept. of Health. Mon. at 2 candidates for Perrysburg will be examined at 175 E. Swan street, after having applied for admission to this Division.

Campaign Against Unclean Dairy Utensils. The Dept. of Agriculture has plans for a home made sterilizer to be used with a kerosene stove, at a total cost of \$15. This will be demonstrated for 2 weeks on application of local health and dairy officials. A comparative experiment showed that 5 gal. of fresh milk, using utensils washed in the ordinary way, yielded 1,880,000 bacteria per c.c., while the use of the home made sterilizer reduced the number to 24,000.

Niagara Co. Tuberculosis Hospital. Plans for a hospital on the pavilion plan have been submitted for approval.

Legal Definition of Nurse. The Mills bill would prohibit any but a training school graduate, registered by the Board of Regents, to use this designation. A representative of Cath-

olic Hospitals has characterized this as an opportunity to trained nurses to form a trust.

Compulsory Health Insurance. At a recent hearing before the Senate Judiciary Committee, the Mills Bill was commended by some and opposed by others. For the bill were representatives of the Am. Assn. for Labor Legislation, State Charities Aid Assn., N. Y. Child Welfare League, International Ladies Garment Worker's Union, Columbia University and the N. Y. City Health Commissioner. Against were Dr. John D. Bonnar of the Med. Soc. of the Co. of Erie, and representatives of the N. Y. Chamber of Commerce, National Association of Manufacturers, State Federation of Labor and State Medical Society.

Hair Snipper. A man claimed to represent this type of sexual degeneracy has been arrested in Buffalo, after having snipped hair from several little girls. It should be borne in mind, however, that human hair has a commercial value and that this type of fetichism has been so much exploited in literature of a more or less romantic nature, that it often occurs without indicating actual sexual degeneracy. Somewhere, some years ago, we came across a young man who had a collection of pubic hair tied with ribbons. We do not remember who he was but have an impression that he was by no means a degenerate in the crude sense, though obviously not a model.

Centenarians. Justus Allen Record of Towanda, father of Dr. H. A. Record of Forestville, died Meh. 12. He was born Dec. 25, 1815. Mrs. Elizabeth Shively of Niagara Falls celebrated her 101st birthday Feb. 27 in the General Hospital, where she has been confined for 3 years on account of fractured hip. Mrs. Hessian Hollin of Richmond, Va., died recently in her 111th year, being considered the oldest woman in the state. Mrs. Alice Bennett of Flat Bush, N. Y., who was 105 years, old, Dec. 24, 1916, died Jan. 21.

Animal Experimentation. A bill has been introduced in the California Legislature providing that unclaimed cats and dogs in city pounds may be sold to universities and medical schools at 50 cents and one dollar, respectively, the animals to be kept in a sanitary manner and not to be subjected to surgical operation without full anaesthesia. This is a sensible, economic law, endorsed by G. H. Whipple Director of the Hopper Foundation for Medical Research, in the Meh. issue of the Calif. State Jour.

Business Efficiency (?). We have recently had shown us a bill to a semi-philanthropic institution, endorsed by six separate rubber stamps for approval and payment, these stamps covering all available space on both sides of the bill.

Red Cross. On Mch. 9, a smoker was given by Mr. Frank McGraw, Chairman of the Local Chapter, to the physicians of Buffalo, with a view to securing their co-operation.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

DOCTOR: Is your Society properly represented here? If not, please bring our standing announcement to the attention of the members.

The Elmira Academy of Medicine held its regular meeting Mch. 5. Dr. A. H. Baker reported a case of Necrosis of Clavicle and Dr. G. M. Case read a paper on Recent Observations of Infections of Upper Air Passages.

The Medical Society of the County of Chemung held its regular meeting at Elmira, Mch. 20. Dr. Arthur W. Booth reported on the meeting of the council; Dr. Ross G. Loop presented some Comments on Recent Service at the Arnot-Ogden Memorial Hospital. Dr. A. H. Monroe read a paper, title not announced.

The Rochester Academy of Medicine, Section III, met Mch. 14. Dr. Joseph Roby reported on a Modification of Peypon Rouse's Test for Donor of Blood for Transfusion and Dr. Albert D. Kaiser read a paper on Serum and Blood Therapy.

The Elmira Clinical Society was entertained Mch. 16 by Dr. Charles Haase. Dr. C. F. Abbott gave a paper on Health Insurance and Dr. Haase on Fracture of the Arm.

The **Buffalo Academy of Medicine** has held the following meetings since last noted:

Section of Pathology: Feb. 28. "The Use of Renal Function in Cases of Nephritis," Dr. Henry A. Christian. Hersey Professor of the Theory and Practice of Physic,—Harvard Medical School. Physician-in-Chief, Peter Bent Brigham

Hospital, Boston, Mass. Dr. Allen A. Jones led the discussion. "The Study of the Effect of Thyroid Extract, on the Nitrogen Balance, Renal Function and Basal Metabolism in Cases of Chronic Nephritis and Hypo Thyroidism."* *This Study from Medical Clinic of the Peter Bent Brigham Hospital,—Dr. Byron D. Bowen, Buffalo.

Special meeting Mch. 2, Carrel Treatment of Wounds and Ambrine Treatment of Burns, illustrated by lantern slides, Dr. Wm. O'Neill Sherman of Pittsburgh.

Section of Surgery, Mch. 7, Diagnostic Value of Obstructive Jaundice, with lantern slides, Dr. Charles Gordon Hayd of Post Graduate Medical College, N. Y. Discussion led by Mrs. Edgar McGuire and Marshall Clinton.

Section of Medicine, Mch. 14, Poliomyelitis, Lessons from the Epidemic for the Clinician, Dr. Philip Van Ingen of N. Y. Discussion led by Dr. H. L. K. Shaw of Albany.

Obstetric Section, Mch. 21, Haemorrhages of Pregnancy, Including Placenta Praevia, Dr. Edward P. Davis, Philadelphia. Discussion led by Dr. Herman E. Hayd.

The Medical Society of the County of Cattaraugus met at Olean, Jan. 11. Officers were elected as follows: Pres., Dr. John C. Hoeffler of Salamanca; V. P. Dr. John A. Johnson of Olean; Sec.-Treas. Dr. H. H. Ashley of Machias.

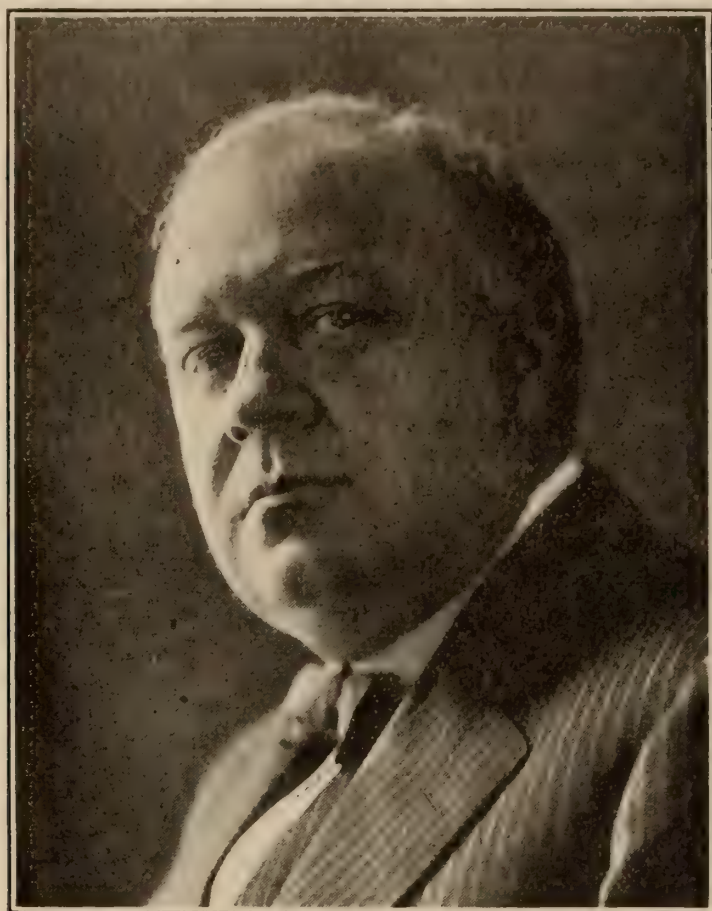
OUR CONTEMPORARIES

Medicine and Surgery, monthly, \$3, makes its debut with the March issue, consisting of 128 pages devoted to surgery. The Editor-in-Chief is Philip Skrainka. There are 15 associates in various cities. The publication office is in the Metropolitan Bdg., St. Louis. The initial editorial on Surgery and Bad Manners is a somewhat unnecessary apology for the military brusqueness of the operating room. The contents are of high grade.

The Journal of Urology, monthly, \$5, begins with the Feb. issue, 138 pages, under the editorship of Hugh Hampton Young, with an executive committee of 3 and associate staff of 18, listed by the universities with which they are connected. It is published from Baltimore.

Dr. Smith Ely Jelliffe has been appointed to the staff of the N. Y. Medical Journal, to fill the vacancy caused by the regrettable death of Dr. Claude L. Wheeler. Dr. Jelliffe was editor of the Medical News for four years before its absorp-

tion by the N. Y. Medical Journal and, for the past 15 years, has been the publisher of the Journal of Nervous and Mental



Disease. He was also one of the founders of the Psychoanalytic Review. He is well known as an author and editor. His editorial duties will not interrupt his practice.

There are over 200 medical journals published in the U. S., the vast majority being monthlies. These may be divided as follows: 1. Organization journals of the A. M. A. and its state branches; 2. Independent, national journals of general scope; 3. Journals representing specialties; 4. Local journals, like this one. Several of the third and a very few of the fourth class are conducted by committees of general or local medical societies, but there is practically no difference on this point as, on the one hand, such journals require a good deal of personal responsibility while, on the other hand, the nominally independent journals must depend on professional co-operation and cannot gain sufficient circulation to be worth while from the financial standpoint.

Viewing the field as critically and as impartially as possible, it may be said that the best journals, i.e., those that give the most for the subscription price include the Journal of the A. M. A., about half of those of the second group, and

about half of the third group. The poorest journals, i.e., those that give the least for the subscription price, include many of the state and local journals and a few of the special ones. This appraisal is not made with reference to scientific standards. A journal of the highest scientific value may and, indeed, usually does, serve the interests of a comparatively small number, while a journal that makes no pretense in this direction may be of the greatest value to a large number of practitioners and ultimately to their patients. Generally speaking, any journal excepting in the third group, would really lose its practical value by attempting a standard in excess of the average knowledge and demands of the average practitioner.

Endocrinology, the Bulletin of the Association for the Study of the Internal Secretions, makes its first appearance with the issue of Jan. 1917. It is to be a quarterly at the rate of \$5, under the able editorship of Dr. Henry R. Harrower, of Glendale, Calif.

Southwestern Medicine, begins publication with the Jan. 1917 issue, merging the New Mexico Medical Journal, the Arizona Medical Journal and the Bulletin of the El Paso Co. (Texas) Medical Society. It is published from Las Cruces, N. M., by an editorial board representing the societies mentioned, Dr. R. E. McBride of Las Cruces being editor-in-chief.

PERSONAL

Announcement of removal, travel, and other matters of interest are requested. Please report errors in the listing of any physician in the State and other directories, that we may co-operate with the State Society in securing a correct list.

Dr. J. L. Mangano has been appointed Assistant Medical School Inspector for Buffalo.

Dr. Frank E. Brundage of Buffalo, announces the removal of his residence and office to 572 W. Ferry St.

Dr. Monroe Manges of Buffalo has returned from a trip to Pass Christian, Miss.

Dr. Timothy E. Donovan of Buffalo announces the removal of his office to Delaware Court, 250 Delaware Ave.

Dr. Francis M. O'Gorman has recently been appointed at-

tending surgeon at "The Buffalo Hospital of the Sisters of Charity."

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. William Henry Craig, N. Y. University 1875, of West Schuyler, Herkimer Co., died of cerebral haemorrhage, aged 69, in a Utica Hospital, Jan. 18.

Dr. Thomas Tobin, Buffalo 1882, of Tyrone, Pa., died Feb. 13, of cerebral haemorrhage, while making a professional call.

Dr. Gustavus Pierce English, L. I. College Hospital 1882, died at his home in Utica, Feb. 18, aged 59. He was a laryngologist.

Dr. John Little Moffatt, N. Y. Homoeopathic 1877, died at his home in Ithaca, Feb. 18, of tuberculosis, aged 63. He was a laryngologist, having been editor of Ophthalmology, Otol-ogy and Laryngology from 1901 to 1904, and of the Homoeo-pathic Eye, Ear and Throat Journal 1905-1910.

Dr. Orrin T. Stacey, Buffalo 1860, died Feb. 21 at his home in Rochester, aged 82. He was born in Centerville, Allegany Co., N. Y., in 1835. He taught school for several years, read medicine in the office of his father, Wm. A. Stacy, who was a graduate of the Castleton, Vt., Medical College, and settled in Rushford, where he practiced medicine for 25 years, moving to Rochester in 1885, practicing there till 1893 when he established a candy business which has grown to large proportions. He was a republican member of the state legislature in 1875 and 1876. He also developed considerable tracts of real estate in Rochester. In the spring of 1905 he underwent a severe operation at Johns Hopkins Hospital and never fully regained his health.

Dr. Alfred C. West (not listed in Polk nor State Directory, of Hornell, died in the Willard State Hospital Feb. 24, aged 100 years, 5 months and 12 days.

Dr. Joseph S. Lehman, Buffalo 1893, died at his home in

Clarence Center, N. Y., March 14, 1917, aged 70. He had been in bad health for several years. Dr. Lehman was, at one time, a student of the editor, and we wish to express a personal regret at his death and a recognition of his noble qualities.

Dr. Mahlon R. Pritchard, College of Physicians and Surgeons of Baltimore, 1880, died at his home in Westfield, Pa., March, having become paralysed Feb. 2 and having a second attack Feb. 23. He was born in Westfield March 4, 1852. He studied medicine with Dr. Bottum of Westfield and took a part of his medical course at the Detroit College of Medicine. He practiced at Harrison Valley from 1880 till 1903, when he took a course at the Chicago Eye, Ear, Nose and Throat College, specialized along these lines, and located at Westfield.

Dr. Frank Gamon, Medico-Chirurgical of Philadelphia 1903, a practitioner of Erie, Pa., died at the Hamot Hospital, Dec. 23, 1916, aged 36.

Dr. Harry Mead, Buffalo 1891, died suddenly at his home, 758 Elmwood Ave., Buffalo, Mch. 18, aged 47. He was born in Youngsville, Pa., July 11, 1869, came to Buffalo as a boy and attended the Central (now Hutchinson) High School, after graduating from which, he entered the University of Buffalo. He studied after graduation, in Germany, France and Austria. He was affiliated with the Buffalo Academy of Medicine and the A. M. A. and its state and county societies. He was a member of the faculty of the Medical Dept. of the University of Buffalo and of the staff of the Buffalo General Hospital. He was, at the time of his death, Secretary of the Medical Section of the Academy. A more extended memorial will be published later.

ABSTRACTS

Have you ever felt that this department of the BUFFALO MEDICAL JOURNAL was lacking in abstracts of your specialty, or that such as were published lacked the expert judgement which you yourself could have exercised in selection and preparation? If not, you are more charitable than the editor has been to himself. If so, will you assist in abstracting from a few journals, and thus make this department more representative and more valuable? Incidentally, there are few forms of study more helpful to the worker than this.

Toxic Effects of Urea. A. W. Hewlett, Q. O. Gilbert and A.

D. Wickett, Arch. of Int. Med., Nov. 1916, in 5 experiments, gave or took 100 grams of urea, either at once or divided over 3-6 hours, thus increasing the blood content from the normal of 4: 10,000 to 16-24.5: 10,000. Headache, dizziness, apathy, drowsiness, fatigue resulted, as in asthenic uraemia. Every gram of excess urea corresponds to a rise of about 25 m.g. per liter (or, according to the usual estimate of a total of 5 liters of blood, to an absolute amount of 1/8 gram in circulation.) They point out that the rise of nitrogenous substances in the blood, characteristic of the later stages of nephritis; urea shows the greatest increase. (However, we have shown that the ordinary tests for urea certainly include uric acid and probably most if not all other non-proteid forms of nitrogen, that it is, in short, an approximate method of determining the total non-proteid nitrogen. Whether specific tests for urea were carried out, we do not know). This report is interesting as tending to corroborate the early, crude conceptions of uraemia and to show that urea is not an entirely harmless substance.

Man the Winter Carrier of Malaria Organisms. M. Bruin Mitzmain, U. S. P. H. S., Bull. No. 84, examined 1183 persons on malarial plantations. 492 infections were identified microscopically. 317 were of the subtertian type, 8 mixed, 1 quartan and the remainder simple tertian. 24.8% of the human carriers harbored gametocytes. 1180 specimens of anopheles were examined during the winter with negative results but 3 anopheles quadrimaculati were found infected in the homes of the gametocyte carriers. The general conclusion is that man and not the anopheles is the winter carrier—and hence, more broadly, the specific carrier of malaria. This fits in with the personal statement of our Associate Editor, Dr. Pel, who told us some years ago that the freedom of Holland from malaria was due to the prompt and general use of quinine to the human hosts.

Genealogy of the Meningococcus and Gonococcus. Miss. Valley Med. Jour., Feb., Chas. E. Barnett of Ft. Wayne. The author describes a case of gonorrhoea of severe type, in a 19 year old farmer's boy, infected along with 13 others from the same source. Supra-pubic cystotomy was performed on account of the large amount of pus, high temperature and septic reaction. Staphylococcus albus was isolated from catheterized urine, later colon bacillus a gram negative coccus considered Neisser's. Tuberculin and Wassermann reactions were negative, micrococcus catarrhalis, gonococcus and meningococcus strongly positive. Gonococcus and diplococcus

from patient's urine, strongly positive. Except as stated, antigens and cultures were obtained from a distance. The author raises the question whether the meningococcus, as suggested by the positive reaction, is not genealogically related to the gonococcus.

Danger of Fly Poisons. The Journal of the Michigan State Medical Society, Mich., reports that it collected in 1916, 36 cases distributed over 14 states, 12 were fatal, 21 recovered, the outcome of 3 was not stated.

Muech-Weiss Tubercle Granules. Edit. Review in Jour. of Lab. & Clin. Med., Feb. Meader thinks they may be degenerate tubercle bacilli, having lost their acid-fast character by absence of the wax coating of the bacillus. Fishberg considers them diagnostic of tuberculosis in old lesions as cold abscesses. On the other hand, apparent demonstration of their nature by the development of tuberculosis in guinea pigs, should be discounted as less than 10 tubercle bacilli, which might easily be overlooked, would be adequate to cause infection. The editor states that he has failed to produce tuberculosis by the injection of sputum containing Muech-Weiss granules without bacilli and, on the other hand, has succeeded with sputum in which neither could be found microscopically. A case in a man of 60, clinically diagnosed as tuberculosis, typic tubercle bacilli never found but granules abundant, came to necropsy and no evidence of tuberculosis could be found but, instead, chronic interstitial pneumonia. Fraenkel and Muech have found these granules in the lymph glands in Hodgkins Disease and lymphatic leukaemia. As the demonstration of the granules requires the concentration of two or three ounces of sputum and is laborious, it is not recommended for clinical purposes unless further evidence of its diagnostic value is adduced.

Pulmonary Syphilis. Cadis Phipps, Boston, Boston M. & S. Jour., Mich. 15, reviews the literature and reports a probable case, showing almost complete recovery on mixed treatment. The clinical picture is that of tuberculosis but rather of mild type.

Fat Embolism is emphasized as the cause of many cases of military shock by W. T. Porter of Boston M. & S. Jour., Feb. 15. Shock has been observed in the present war to be especially frequent after shell fractures of the femur and, more generally, to be associated with wounds by such missiles as tend to shatter bones, in proportion as the amount of medul-

lary tissue involved suggests the possibility of fat embolism. Shock with fall of blood pressure may be produced experimentally by injecting fat into a vein, but the presence of fat, per se, in the blood does not cause such symptoms, embolism*being requisite.

Ambrine (sold as Parresine in this country). E. Callamand reports observing several severe cases with the same astonishing results described by Dr. Wm. O'Neill Sherman of Pittsburg, before the Buffalo Academy of Medicine (*Le Moniteur Med.*, Feb. 13). H. D'Arcy Power, *Calif. State Jour.*, March, refers to Barthe's report of the ambrine treatment of burns and of frost bites, etc., and himself applied the treatment to a case of ulceration following diabetic gangrene. He used 3½ parts each of white wax and paraffin and 1 part of resin, filtering through cheese cloth and applying with a brush. Ambrine is also applied in a heated spray. All accounts emphasize the complete freedom from pain.

New General Bacterial Stain. Munoz Uvra, *Rev. Vallisoletana de Especialides*, No. 11, 1916, describes the method as follows: 1. Dry and fix in flame; 2. Stain with 1% aqueous solution of methylene blue and pass through the flame; 3. Wash; 4. Wash for ½ minute in a cold solution containing to each 100 c.c., 6 drops of sulphuric acid and potassium bicarbonate to saturation; 5. Wash in water for 1 minute; 6. Apply to the mount a few drops of 1:500 safranin in water; 7. After 1 minute wash and dry. Mount in colophane dissolved in gasoline. Bacteria are stained deep blue or violet, the nuclei show all details, the cellular substance is rose-violet and intercellular connections are dark gold color.

Relationship Between Gastric Ulcer and Cancer. Frank Smithies, *Chicago, Ill. Med. Jour.*, March. In 1882, Zenker expressed the opinion that all gastric cancers arose on the basis of pre-existing benign ulcers. In 1889 Rosenheim concurred. In 1902, Futterer held that cancers frequently arose on ulcers of the pylorus but less commonly in other regions. Other observers have made the following estimates: Fenwick 3%, Friedenwald 7.3%, Moynihan 66%, Sapaska 10%, of cancer cases traced back to ulcers. Smithies, in 953 cases of gastric cancer, demonstrated by operation or necropsy, found that 543 (57%) gave histories of ulcer and 93 more (9%) of atypic ulcer. 544 cases of benign ulcer had an average duration of 11 years. 646 ultimately malignant cases had an average duration of dyspeptic period of ulcer type of 10.8 years. 93 cases of cancer following atypic ulcer

symptoms gave an average duration of the clinically malignant period of 6 months. 337 cases, clinically malignant from inception, had an average duration of 6.9 months.

Typhoid Test in Nurses and Physicians. F. P. Gay and A. R. Lamb, *Jour. of Lab. and Clin. Med.* Jan., discuss the results of the dermal test originally described by Gay and Force.

12 persons, giving distinct history of typhoid 2-22 years previously, 9 positive, 75%

29 vaccinated within 6 months, 19 positive, 65.5%

50 vaccinated 6 months to 1 year previously, 32 positive, 64%

24 vaccinated 1-1½ years previously, 18 positive, 75%

13 vaccinated 2-2½ years previously, 7 positive, 53.8%

5 vaccinated 3-5 years previously, 2 positive, 40%. These had had various vaccines, the others N. Y. Board of Health vaccine.

21 persons who had not had typhoid nor been vaccinated, 3 positive, 14.28%

Pollution of Streams. The N. Y. Supreme Court has upheld damages awarded by a lower court against the city of Batavia for pollution of Tonawanda Creek. (*Pub. Health Reports*). This is a radical decision when we consider the geography. Tonawanda Creek is a winding, rather sluggish stream, scarcely available or needed to supply potable water to any town. With the exception of Batavia, it passes no city till it reaches the Niagara River between the Tonawandas. Logically interpreted, this decision means that there shall be no rural pollution of any stream.

Trypsin in Cancer. M. W. McDuffie of N. Y., *Med. Times*, Feb., reports two cases treated by intravenous injections. One died of apoplexy from straining at stool and post mortem showed no evidence of remaining cancer, the other was clinically cured.

Diagnosing a Lie. Benuzzi of Graz, by experiments with students, giving them cards marked for truthful and untruthful descriptions, found that the quotient of the inspiratory divided by the expiratory duration was diminished in telling the truth and increased by telling a lie. In other words, it takes more inspiration to tell a lie than the truth.

Crises of Amoebic Dysentery in a Carrier, Precipitated by Antityphoid Inoculations. Aide-Major Dr. Bouyer of Cau-

terets. Jour. de Med. de Bordeaux, Feb., reports a case having two such crises at an interval of 4 years. At both times, great prostration and severe diarrhoea occurred.

The White Adrenal Line, Emile Sergent, Paris, Endocrinology, Jan. 1917, marks some characteristic design on the abdomen, using the rounded end of a fountain pen or the finger tip, not the nail, and avoiding undue pressure or scratching. The test must not be made after the application of a poultice, compress, bandage, etc., and the clothing should have been removed at least 15 minutes before. The result should be viewed in a good light but shaded against glare. In well defined cases of adrenal insufficiency, a white line develops in about a minute and persists 1-3 minutes. The explanation is that in adrenal insufficiency there is general arterial hypotension, with peripheral vaso-dilatation and that light stimulation of the skin produces reflex vaso-constriction with blanching of the skin. The author warns against seeking absolute tests in general and one would imagine that this test would fail not only in cases of normal adrenal function lacking the initial superficial vaso-dilatation but in marked cases of failure of the adrenals in which even external stimulation would not produce a reflex constriction.

Hard Chancre of Bulbar Conjunctiva of Child of Ten Years. H. Fromaget, Jour. de Med. de Bordeaux, July 1916, reports an ulceration 3x10 m.m. Wassermann reaction positive, negative in mother and sisters. Source of infection not determined. Cure by novarsenobenzol, 0.15 intravenously. This is the third case seen by the author.

THOUGHTS ON WAR

Personal Preparedness.

In view of the disturbed political conditions:

Avoid all speculative investments.

Limit investments to real estate ownership and first mortgages or to things that you can actually use or closely supervise.

Keep an adequate reserve in the bank and, in an emergency, of actual cash, preferably in gold.

So far as possible, do business on a cash basis both ways.

Lay in a reasonable supply of all non-perishable necessities of life, including drugs and chemicals, etc., whenever obtainable at normal prices but do not overdo this precautionary measure.

Do not fool away either time or money. Even philanthropies should now be of practical nature.

Dispose of "unfinished business," financial, social, professional, scientific, literary and personal, including your will.

Health Insurance.

In view of the probable increase of the military establishment of the country and the possible control of many forms of industry, necessarily including the medical supervision and care of a large part of the population, this time is particularly inappropriate for the adoption of any radical experiment of socializing the medical profession. Without regard to this point, there are two weak spots in all such measures: the arbitrary classification of labor and lack of protection for the special form of labor (medical) to be utilized. Medical organizations generally should adopt a concerted and definitely formulated policy that all schemes for utilizing the labor of the medical profession shall, in a practical way, guarantee the proper balance of work and pay for the labor employed. It is entirely conceivable that not only the fairest and most efficient solution of the various problems involved, but the most convenient, will be the extension of the duties of the established government medical services, probably with some degree of transfer of authority from nation to state. War or even extensive military preparation will automatically provide medical care for a considerable proportion of the industrial population, more extensively and more thoroughly than in the past. If the general need of medical attendance as provided in typic health insurance bills exists, it can be carried out by medical officers in time of peace but of preparation of war so as to allow the economic utilization of an adequate medical corps. During actual hostilities, if there be such on our territory, it can be carried out as in other wars by systematic philanthropy, without burdening the state in a time of emergency, with the distribution of a further burden called by another name. If we have war, its cessation will cause more hardship to medical officers suddenly thrown out of employment than to any other part of the population. By carrying on the principles of health insurance by an existing, well trained medical corps, the various problems can be solved economically and efficiently.

The Sublime and the Ridiculous in Patriotism.

A true story of patriotism is as follows: A man entered a recruiting station in England, bared his abdomen and took off a shoe and stocking and said, "Now, will you take me?" Rejected on account of a hernia and some form of talipes, he

had submitted to radical operations in order further to risk his life for his country. This story deeply impressed an audience, moving some to tears. One hearer merely grinned. When upbraided for his cynicism, he explained that he had been doing somewhat the same thing himself but the circumstances were just different enough to take out the heroism and appeal to his sense of the ridiculous. He had been having his teeth filled so that, if anything did happen, he would be ready.

After all, it is just as practical from the standpoint of patriotism and applicable to a far greater number of cases, to have the teeth in good condition, to be vaccinated against small pox and typhoid, to make sure that vision is normal or corrected by lenses, to cut down superfluous flesh and build up muscle by exercise, to get rid of adenoids, nasal obstructions and piles, as to show the heroism of the British applicant. The medical profession can do much toward preparedness by reducing the physical unfitness due to very minor conditions.

The Attitude Toward Certain Means of Warfare.

At several medical demonstrations, we have been impressed with the instinctive antipathy toward gas bombs, liquid fire, etc. Men viewed with strictly professional interest or, at most, with expressions of sympathy for the sufferer, the most horrible and painful lesions produced by missiles of various kinds but destruction of life by gases and lesions produced by intentional and direct application of fire, even if not involving any more pain than the former and even if resulting in less permanent disability, produced expressions of anger, by no means dependent on natural prejudices for or against either side in the conflict. During the Civil War, a physician seriously proposed the dissemination of small pox virus in the south. The need of greater offensive efficiency was, at the time, especially urgent and probably from the individual standpoint, most persons would choose an attack of small pox to a severe wound by any ordinary weapon of war, but the proposal was received with a degree of popular indignation which threatened the safety of the proposer. We admit the inability properly to analyse these instinctive prejudices and sentiments but we feel that they very literally represent the principle *Vox populi, vox Dei* and we urge that while actual conflict is still only a remote possibility, they be crystalized into a decision as to public policy in the event of war, that shall not be changed under any provocation. When, at the close of the first conflict of the Revolution, Mr. Emerson's hired man emerged from a place of safe hiding and

despatched a wounded British soldier with a hatchet, he made a blot on American history that nothing can obliterate. While we are still capable of thinking calmly, let us impress it on our own minds and on those not able to think logically for themselves, that wars last a very short time in comparison with the periods of peace in which we have ample time for reflection and let us insist on a uniform policy of humane warfare before war even becomes probable.

Neutrality.

So far as can be judged from the conduct of audiences at picture shows and the like, and from newspaper discussions, the people of the United States have sincerely and, in the main, successfully, endeavored to preserve a genuine neutrality during the war. There have, of course, been individual opinions, some directly due to nationality of birth, some obviously influenced by hereditary loyalty to one or another of the ancestral countries, some formed by dispassionate judgment so far as the individual has been aware. That the last class of sympathies have been genuinely due to reasoning is well shown by the fact that they have in some instances been contrary to suppositious hereditary loyalty, while in other instances, they have followed ancestral affiliations when the mere fact of being an American was due ultimately to bad treatment by the mother or ancestral country. The fact that the judgments have differed irrespective of heredity, shows that, while a large number of decisions must be incorrect, they are in the aggregate due to logic and not to prejudice.

Recent developments have made even the theory of absolute impartiality of sympathy, incompatible with immediate national duty. But, in a broader sense, neutrality should still be preserved. Patriotism to our own country should by no means imply racial prejudice or hatred. Neither should we single out for our hostility any individual or group of individuals who happen to personify to us, a nation or group of nations. Perhaps we should go even farther than this. The present contest is viewed by many as one between democratic and autocratic systems of government but we must not forget that the theoretic form of government does not necessarily indicate its essential qualities nor do the people necessarily choose in accordance with our own notions. Nor must we ignore the fact that autocracy has been directed to produce prosperity and efficiency, honest and economic municipal government, and a degree of personal liberty in peace which in many respects are far ahead of what our own democracy has produced.

Time to Quit Frittering Away Time and Money.

Individually and collectively, the time is ripe to turn needless wastes into resources that may be needed for war and that would greatly increase the general prosperity in peace. Alcohol, tobacco and chewing gum are not the only things whose cost might be applied to building battle ships. Eliminating blotting paper, calendars and circulars would build a whole fleet and leave much paper for more useful purposes. Not even Uncle Sam through the post office nor the rag man make enough to count from this waste. It is estimated that this country spends 72 millions a year on church music. The mere official work, printing and postage of "good causes," charitable, educational, literary, scientific, etc., must mount into the millions, not to mention the many times larger contributions for the real work of such organizations. Much of this work is necessary, from the humanitarian standpoint; a good deal of it is desirable, much of it is merely playing at being either philanthropic, literary or scientific. Practically all of the really useful work is carried on either by organizations that duplicate or multiply one another's efforts or that duplicate similar lines of activity by various branches of the government. It is safe to say that half of the outlay of the people on this sort of activity is wasted—the total certainly running into hundreds of millions.

Right here and now, there is complaint of high prices and a whirl wind state investigation holds out no hope of relief except further economy of the kind of going without ordinary comforts. Yet a retail dealer in food stuffs reports his business stagnant because the people will not pay what he has to charge, the wholesale market amply stocked and jobbers throwing out vegetables and fruit daily rather than sell the whole at a lower price. For more than a year after the war began, food prices in England, France and Germany were, with some explainable exceptions, actually lower, not only than our own present prices but lower than those current in America for several years.

The U. S. Government, in 1914, considered and decided against a cent a gallon tax on gasoline. Private corporations have gradually added a tax of more than 10 cents. True, it is estimated that we are threatened with an exhaustion of the supply, but in about 25 years, with many possible sources of supply to hear from and ample leisure to work out the problem of a substitute fuel or source of energy.

There are only a few A B C's of economics. It is time that as a people, we master at least the whole primer. If necessary, we can carry on quite a good sized war on what we waste.

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ORIGINAL ARTICLES

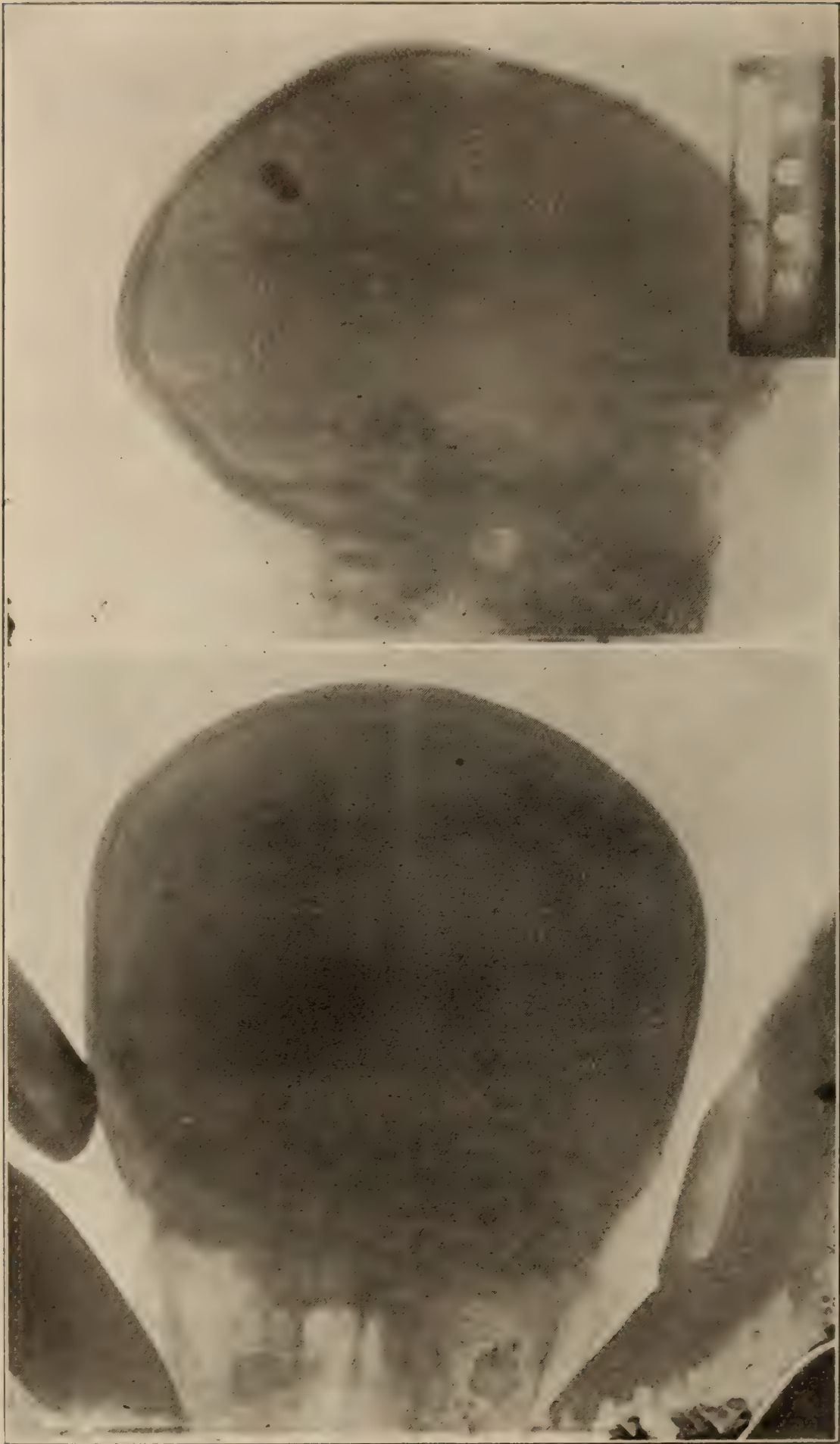
The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Bullet in Brain Destroying Sight and Hearing—Recovery.

EVAN O'NEILL KANE, M. D., Kane, Pa.

Brain injuries from projectiles are of such common occurrence in the present World War that the citation of the following case history in civil practice would be inexcusable save for its unique character.

CASE HISTORY: Clarence Irwin, aged four, in struggle with his brother of six for the possession of their father's revolver, discharged the weapon at close range with the muzzle directed towards his mouth. The ball entered the upper lip to the right of the median line one centimeter below the wing of the nose, and after traversing the brain anteroposteriorly and striking the occiput, rebounded about three centimeters and stopped turned more than half around upon its axis. Radiographs demonstrated its position clearly, but the child having been brought forty miles in an open automobile over rough country roads in severely cold winter weather, also having lost considerable blood, it was decided to postpone operation (it was 11 p. m. when he arrived) until the following morning. Trephining was not undertaken until sixteen hours after arrival. The brain tissue at the point of opening was not disorganized, though engorged and edematous. After protracted search in all directions with needles, supplemented by small spoon curette, for fully five centimeters without detecting the missile, further exploration was abandoned. A needle was pushed to the base of the explored area, packed in place with gauze, and another radiograph was taken transversely and anteroposteriorly. It was thus disclosed that through an error of the radiographer, who had placed the picture for inspection wrong side foremost, the opening had been made at a point just to the left of the median line and falx instead of, as the position of the



needle in the radiograph indicated should have been done, to the right. The child was again placed upon the operating table and the same procedure repeated in the proper location. Again exploring needles were passed in all directions, but without success, despite the fact that a gush of pulpified brain tissue, blood and clots, which escaped as soon as the opening was made, proved that the missile must be in the near neighborhood. The entire area was explored more than six centimeters in every direction, save where the falx interposed a barrier. Abandoning further search in this manner, the little finger, rubber gloved, was gently inserted, and with it a more comprehensive exploration made. The bullet was then discovered well below the trephine opening, close against the cranium, where it had evidently fallen through gravity during the operation. The missile was readily removed with curved forceps; the cavity was then drained with catgut and gauze. Recovery was uneventful without fever or suppuration. Some brain hernia took place at first, but this was soon overcome by suitable pressure.

From the time of the injury until eight hours after operation the breathing continued sterterous and irregular, the pulse full, slow and variable, the pupils contracted and divergent. These ominous symptoms gradually subsided, and after six days consciousness began to develop. It became evident, however, that the little patient was both blind and deaf. He groped about helplessly at first, crying to know when daylight would come. He implored frequently that someone would bring his father's lantern from the barn, or his brother's flashlight, the wonders of which he described graphically, from the shelf where he affirmed it was hidden. He was a singularly intelligent child for his age, and showed remarkable ability in adjusting himself to the circumstances of his limited senses, in deafness and blindness playing with his toys by feel and enjoying his food by taste and smell, feeding himself quite skilfully despite a slight incoordination which made carrying food directly to the mouth somewhat uncertain. Five days later, to the joy of his attendants, it became evident that hearing, though very imperfect, was returning, and in another week it was quite clear, so that his chattered conversation with all within reach was continuous. He remained in darkness for ten more days, and had become quite cheerfully resigned to his lot when light perception began to be evidenced, and, I believe, had he remained blind would have still been happy. A week later his eyesight was excellent. At present writing, three months after accident, he is in possession of all his faculties and, save for a slight

unsteadiness of gait, somewhat like that of a sailor on shore, he is entirely normal.

A line drawn from the point of entrance of the bullet to that of its arrest proves it to have traversed at first the cranial floor, and thereafter at least seven centimeters of the base of the brain scarcely two centimeters from the median line. For a missile of this size (No. 32) at close range to have taken this course it must have torn a sufficiently wide way for itself, and the structures through which it passed should have been so disorganized or thoroughly destroyed as to appear to preclude restoration. The suggestion is obvious that at this early age nerve and brain tissues have remarkable recuperative power. While fortunate from a clinical standpoint in having recovery take place, it is to be regretted that the interesting data to be derived from an autopsy are unobtainable.

230 Clay Street, Kane, Pa.

Generin. James Oliver, London, N. Y. Med. Jour., Jan. 20, claims that a special substance (hormone?) to which he gives this name is requisite for both menstruation and gestation and that women who cannot menstruate do not become pregnant. He cites 9 cases, 3 married after the usual age of the menopause but under that at which conception becomes impossible, the other six married before the age of the menopause, under observation 3 or more years and now past the menopause age. He believes that ovulation is independent of menstruation because he found Graafian follicles in an unmarried woman of 29 who had never menstruated. He distinguishes between cases that do not menstruate as on account of lactation, or pregnancy occurring soon after premature marriage and those that cannot menstruate.

Pulse and Blood Pressure on the Firing Line. Pierre Menard, Bull. de la Soc. de Med. de Paris, Oct. 27, 1916, gives tables and diagrams which he sums up as follows: In the first line, 100-150 meters from the enemy, the maximum and minimum pressures are generally lowered, rising in the second and third lines; there is a more or less marked tachycardia in the first line. A violent emotion, as due to the fall of a shell near by, considerably raises the minimum pressure but only slightly the maximum. Fatigue and over-strain always reduce the difference between maximum and minimum tension, almost always elevating the minimum. In $\frac{2}{3}$ of cases they increase the pulse rate, in $\frac{1}{3}$ they reduce it.

Samuel Guthrie, Discoverer of Chloroform.*

By DR. WILLIAM V. EWERS,

Physician Junior Staff Rochester General Hospital.

In these modern times history, both general and medical, is made very rapidly. Today a new discovery is announced; a new name is added to the honor role of medicine; tomorrow another will penetrate a little deeper into the secret of our science. In our haste to do homage to this latest claimant for honors we slight the hero of yesterday, and like the actor of a former generation, he is soon forgotten. We may make daily use of the discovery, but the name of the discoverer we no longer remember.

It is the function of medical history to keep alive the memory of these medical pioneers, and it is now and then interesting, if not instructive, to turn from things medical and consider their lives and works. It has been the reader's good fortune to spend his summers for a number of years in a lake village of northern New York where one of these medical pioneers lived and did his work. He was Dr. Samuel Guthrie, discoverer of chloroform. It has been the reader's intention for several years to write a sketch of his life, but for one reason or another it has been put off until the present time.

Dr. Guthrie was descended from a prominent Scotch family. The family were Covenanters, and one of them, James Guthrie, a minister of Sterling and son of the Laird of Guthrie, on account of his writings, was hanged at Edinburg on June 1, 1661. These religious persecutions forced the family to emigrate to the new world, where they first settled in Boston. From there they moved to different places in New England. In the pre-revolutionary days they were living in Lenox. The Doctor's grandfather took an active part in the events of the time, and when the war came he enlisted in the Revolutionary army with his two sons, Samuel and Joseph. Later Samuel, the father of our Doctor, studied medicine and settled in Brimfield, Mass., where he became prominent in his profession. Here the subject of this sketch was born in 1782. He was the eldest child of his father's first marriage. Nothing is known of his boyhood. What education he had he evidently received in Brimfield. We know that he studied medicine with his father, and when ready to practice removed to Scherburns, Chenango Co., N. Y., where his grandfather,

*Read before the Rochester Pathological Society, May 4, 1916.

James G. Guthrie, had moved in 1792. Whether his father's second marriage had anything to do with this move we do not know. His father in his will left him one dollar, Dr. Rush's Enquiries in five volumes, and a set of silver catheters. As the other children fared about the same, the bulk of the estate going to the widow, he probably was not slighted.

It was at Sherburne that he began the practice of medicine, and we are told that he was successful. That he was made of the right stuff the following incident seems to prove. Jenner had only recently announced the discovery of vaccination. Guthrie was evidently much impressed, and soon became a firm believer in the value of the preventative against small-pox. Being called to attend a case of the disease and wishing to prove to the community the value of vaccination, he vaccinated his cousin, Sarah Guthrie, who had volunteered to nurse the patient; in whose room she also slept. Neither nurse nor Doctor contracted the disease. Though history does not state, I presume that the Doctor was also vaccinated. This vindication of the value of vaccination seems to have increased the Doctor's reputation for we are told that from this time on his advance was rapid.

It was while living at Sherburne that he became interested in manufacturing and experimenting with gunpowder. This interest never flagged during the rest of his life; and there were occasions when it came near causing his death, as he was involved in several severe explosions. In one of the last letters he ever wrote, he told his daughter that he was experimenting with gun-cotton.

In 1804 he married Sybil Sexton of Smyrna. Mrs. Guthrie was born at Somers, Conn., in 1788, and moved to Sherburne with her parents in 1795. She seems to have been a woman of strong character, well fitted to be the mate of such a person as the Doctor. Four children were born of this marriage, two sons and two daughters.

The next we hear of Guthrie is that during the winter of 1810-11 he attended medical lectures at the P. & S. New York. During the war of 1812 he was examining surgeon for the army. Where his duties took him at this time we do not know. The next we hear of him is that in January 1815 he attended medical lectures at the U. of Penn. While there he kept a journal that contained descriptions of what he saw, and in it, we are told, he did not hesitate to criticise his teachers. Unfortunately up to the present I have been unable to find this journal. I have no doubt that it contains much that would be of interest at the present time. It consisted of 275 closely written pages, some containing more than 200 words to the page. After the war of '12 Guthrie had es-

established a vinegar factory at Sackett's Harbor, N. Y., for supplying Madison Barracks', the army post at that point. In 1817 he removed there with his family, locating about a mile from the village on Mill Creek at a place called Jewittsville. Mill Creek furnished sufficient water power for his needs; that is, his laboratory, powder and vinegar factory, and alcohol distillery.

His activities were not limited to his factories and laboratory. He also practiced farming and horticulture, and for a short time engaged in the practice of medicine in his new home. He set out a vineyard that evidently thrived, as it became one of the show places of the neighborhood, and was visited by people from far and near. These visitors became such a nuisance that the Doctor finally had the vineyard dug up, and even the stone wall removed. Whether the bother of these visitors was the only consideration that prompted this act I am inclined to doubt; as Sackett's is rather far north for grapes to do well, and as far as I know there are no vineyards in those parts at the present time.

The next thirteen years must have been busy ones for the Doctor. He probably devoted his time to his different business pursuits. At any rate he was not publishing any of his experiments. In 1826 he began the manufacture of priming powder. This soon gave him a reputation with sportsmen, and his powder was extensively used in this country and Canada. His manufacturing must have been on a rather extensive scale for those days and that place, as Professor Stillman, in speaking of the chemicals that "Mr. G." had sent, says that "Mr. G. has made, and generally by processes peculiar to himself, one hundred and twenty thousand gallons of vinegar and one hundred thousands of alcohol," and in another place states that Guthrie had manufactured within three or four years twelve hundred pounds of chlorate of potassia, and this enormous quantity is partly accounted for by the fact that he sells one thousand ounces per annum of his priming powder, of which the chlorate of potash is an indispensable ingredient. With all these activities Guthrie did not neglect working in his laboratory, for in another article he tells us "A series of experiments was commenced at my laboratory" on the making of sugar from potato starch. He later induced a friend of his, a Captain Potter, to undertake the manufacture of the sugar, on a large scale. The experience he gained in this manufacture he communicates to the American Journal, and in a true scientific spirit tells how he did it and where he thinks improvement could be introduced. Evidently neither Guthrie nor his friend knew that they were making glucose, instead of cane sugar. Their

product was a thick syrup, and they were unable to produce it in crystalline form unless they made it in lead retorts, which Guthrie claimed contaminated the sugar.

It was probably about this time, or a little earlier, that he invented the percussion lock. Dr. Guthrie fired the cannon at Madison Barracks with some of his percussion powder, using a hammer to ignite the powder. An officer who witnessed the experiment laconically remarked that soldiers could not be expected to go to war carrying hammers. This remark evidently sunk in, for when the doctor went home, he made a percussion lock. On the seal of the Jefferson County Historical Society there is a representation of Guthrie firing the cannon.

For medical men the most interesting of Guthrie's discoveries was that of chloroform. It is this discovery that entitles him to a place in works on medical biography. It is one of the paradoxes of nature that the man who gave the world percussion powder, a substance that has added to the miseries of the world, should be the discoverer of chloroform, which has helped to relieve the sufferings of mankind.

Like many other medical discoveries, chloroform was first made by three investigators, working independently, in different parts of the world. They were Soubeiran of France, Liebig of Germany, and Guthrie of America. The priority of Guthrie's claim has been well substantiated. The evidence has been well sifted by the Chicago Medical Society, which a number of years ago investigated the subject and made a report favoring the claim of Guthrie. Ossian Guthrie, a grandson of the Doctor, collected much evidence, which he published in a pamphlet on the life of the Doctor. Soubeiran's article on ether bichlorique appeared in the "*Annales de Chimie et Physique*" for October 1831 and in the "*Journal de Pharmacie*" for January 1832, of which journal Soubeiran was co-editor. Liebig has shown that on account of the political disturbances in France at that time the "*Annales de Chimie et Physique*" did not appear until January 1832. This is further proven by the fact that it contains the meteorological records for the whole month of October 1831, and an article dated January 1832. Liebig claims to have published an article in Poggendorff's *Annalen* of November 1831, on the decomposition of alcohol by chlorine, in which he states that a new chloride of carbon is formed (1) by the action of aqueous alkalies on chloral, (2) by the distillation of alcohol with excess of bleaching powder, and (3) by distilling bleaching powder with acetone. Guthrie's first article appeared in the first part of volume XXI, page 64 of the *American Journal of Science and Arts*, the editor of which

was Professor Sillman of Yale. The article is entitled "A new mode of preparing a spirituous solution of chloric ether." The first part of volume XXI was issued in October 1831, the journal being issued quarterly the first of April, July, October and January. The April and July numbers were bound in one volume and the October and January ones in another. So when volume XXI was issued it was dated January 1832. All the articles in this first part that are dated, bear dates early in the summer of 1831. The date of Guthrie's article is not given, but the one just preceding it is dated July 1831, and the second article after it, July 2, 1831. From this it has been assumed that Guthrie's article was probably written during this month.

The only article following Guthrie's that bears an earlier date than July is one of June 25, 1831. The editor states, in a footnote, that this was received too late for insertion in the last number (that of July 1831). The parenthesis is that of the editor. The only other article following Guthrie's that is dated, is dated August 1831. In this first article Guthrie makes the statement that "During the last six months, a great number of persons have drunk of the solution of chloric ether in my laboratory." This places the discovery of chloroform early in the year 1831. In the second part of this volume there is a letter from Guthrie dated Sackett's Harbor Sept. 12, 1831, in which among other things he says that he is sending this day Professor Sillman the chemicals enumerated, among which he mentions a bottle and phial containing alcoholic solution of chloric ether. The editor adds that they have been received.

So far as I know, the only statement that Guthrie made in regard to this subject is in the letter which he wrote to his daughter Harriett, dated Feb. 9, 1848. This is the so-called "Chloroform letter." He wrote as follows: "I could have made a fortune if I had gone to New York as I was urged last fall: by making sweet whiskey, which you remember taking when suffocated with charcoal. You see it is called chloroform, and the newspapers are beginning to give me the credit of discovering it. I made the first particle that was ever made, and you are the first human being that ever used it in sickness. This is likely to prove the greatest discovery in medicine the world ever saw. By breathing it a few seconds, the person falls apparently into a sweet sleep: when breasts, legs and arms may be cut away, painful labors ended, and all without pain or injury."

(To be concluded in June issue).

American Balneology.

Dr. FELIX VON OEFELE, New York.

THE CENTER OF UNITED STATES

The center of the United States contains few old fields of low mineralised springs, for instance, in the district of the Ozarks and Wisconsin. These fields correspond to islands emerged during the oldest eras and exhausted of soluble minerals. In general, the spring waters of this center are remarkably higher mineralised than the springs of the Atlantic areas.

The special eastern corners where two Atlantic areas border on the fourth area, are characterized by the two fields of thermal springs of the Tahonic Mountains and Virginia. These two thermal points indicate the straight direction of the eastern boundary line of the fourth area. There is a less practical reason to subdivide the Eastern Mississippi area into subareas according to the subdivided Atlantic areas.

The center of the United States forms the fourth, fifth and sixth balneological areas. In the time of Columbus they were wood land in their eastern part. The western Mississippi area overleaps to the prairies. The western Mississippi area shows prevailing homogeneous winds like monsoon; for the winter it is northwest and north, and for the summer southeast winds. The most annual rain falls near the Gulf of Mexico with kaenozoic and mesozoic groups of strata and properties for less valuable mineral springs. This amount of rain decreases slowly in the direction to the Ohio River in the eastern Mississippi area, but rapidly to the north in the western Mississippi area. When the amount of annual rain is decreased to a certain point, the condition of moisture for trees is gone, and the woodland changes to the character of woodless plains. The country of frequent rains and of woodland with palaeozoic declines is rich in springs and the woodless plains are poor. This country rich in springs forms the fourth area of Eastern Mississippi districts.

The country west of the eastern American mountain system was at different times an enclosed gulf sea. The deposits are water deposits formed partly by concentration or evaporation. They contain a high amount of soluble constituents. At many locations the eastern Mississippi area contains sodium chloride deposits from an old palaeozoic sea, and at other locations calcium sulfate from later palaeozoic periods. The southern part of these areas has kaenozoic origin. It will stay united in the fifth area. The western Mississippi area

contains residues of some old palaeozoic mountains; but the principal part is mesozoic deposit, rich in lime. Farther west, the Mountain area includes many rich salt kaenozoic concentrates of continental origin and young volcanic intrusions. The summation of these circumstances is the reason that the mineral waters of these three areas are commonly more highly mineralised than an average drinking water. The district of Wisconsin and the other Ozarks are exceptions of very old emersions with low mineralised springs.

THE EASTERN MISSISSIPPI AREA.

The presence of a remarkable amount of sulfates and a condition of reduction within the higher strata very frequently create sulphide springs west of the eastern mountain chains. The inverted conditions are the reason for the absence of real sulphide springs in the three Atlantic areas. On this basis the metropolitan sick people of New York find the nearest sulfide springs, sodium chloride springs and calcium sulfate springs in the upper state between Albany and Buffalo. They depend upon these mineral springs, if they do not prefer a trip to the farther west. Only in western direction the patient from New York will find more mineral springs of high mineralisation. The same conditions are repeated for the inhabitants of Philadelphia, Washington and all cities of the thirteen oldest states.

AREA IV. District 1.

CHAMPLAIN DISTRICT.

A small Cambrian and Ordovician ribbon passing through a small western part of New Foundland, is continued on the south shore of St. Lawrence River and forms the northwest corner of New England.

A connecting field from the submineralised springs of the New England area to the sulphide springs of the State of New York are the claimed mineral springs situated somewhat east of the Vermont sulphur springs. This is the field of the Cambrian rocks with calcium sulfate, especially at Chelton, Franklin County, Vermont, and vicinity, in which different springs of a certain type are located in about one mile radius.

By this type I mean low mineralised springs of more than 0.03% total solids, but with predominant calcium compounds.

Missiquoi Spring, Vermont, called in some literature Missisquoi Spring, is in a stright line with Clarendon Springs, Vermont, Sand Springs, Massachusetts, and Lebanon Springs, New York. The percentage of silica calculated to total solids is slightly above 10% or below 10%, since the silica of New

England silicated springs ranges from 11 to 35% of total solids.

Missiquoi Spring, Vermont, 0.0320% t. s. 6.20% SiO_2 and 14.16% Ca.

Clarendon Spring, Vermont,, 0.0374% t. s. 3.75% SiO_2 and 13.83% Ca.

Sand Springs, Massachusetts, tepid 75°F. 0.0195% t. s. 11.12% SiO_2 and 12.39% Ca.

Lebanon Springs, New York, tepid 75°F. 0.0413% t. s. 13% SiO_2 and 6% Ca.

Missiquoi Spring is mentioned by James K. Crook with Sheldon Springs, Franklin County, Vermont. There are claimed four springs:

Central Spring within the village;

Vermont Spring half a mile from the village;

Missiquoi Spring one mile and a half northward;

Sheldon Spring two miles from the village. Crook claims the older analysis advertised for the Sheldon Spring.

The northwestern corner of Vermont contains Ordovician rocks. This a balneological field of the neighborhood of Lake Champlain. The geological conditions there have caused the mineral springs to contain a large amount of calcium sulfate, also reduction products, such as sulphides and free hydrogen sulphide. We will find this the general condition of northern New York and overlaps the questioned small northwestern part of New England, in the neighborhood of Lake Champlain. To this kind of springs belongs, within Vermont: Alburgh Spring, Highgate Spring and Newburg Spring.

Alburgh Springs, Grand Isle County, Vermont, 0.0652% t. s. free sulphurhydrogen..

Highgate Spring, Franklin County, Vermont, with two contradictory analyses.

Newbury Spring, Orange County, Vermont, without analysis.

The centre of the Adirondacks and the Blue Ridge of the Appalachian system form an uncontinuous ribbon of pre-cambrie intrusive rocks. But the Adirondacks do not contain any claimed mineral spring.

AREA IV. District 2.

THE THERMAL AND THE CARBONATED WATERS OF NORTHEAST.

The western seashore of the Appalachian island of pre-cambrie eras became a broad fault for rising volcanic material. This fault is still in existence and duplicates in different parallel faults, all of diagonal direction on the globe and with a tendency to S-shape configurations.

This old precambrian volcanic fault is the most important district for the magmatic balneology of the eastern United States. It is an almost straight line from Cape Farewell, Greenland, to Carrollton, Georgia. The northern part from Greenland to the Adirondacks was a chain of volcanic spots on a southeastern seashore of an old continent. It crosses the southern part of the State of New York without surface evidence at the present time, and in the Appalachian Mountains becomes a continuous ribbon of intrusions with two bifurcations. There in palaeozoic era it formed the north-western seashore of a peninsula.

For this reason we will find in the third district the same geological deposits west of the southern part in question, as we found in the previous district in an eastern direction.

The precambrian bifurcations mentioned are included in the first area as a field near Philadelphia, and in the third district of second area as a larger balneological field of Virginia and North Carolina.

In the fourth district of first area and third district of the second area, we learned the younger jurassic intrusions. Their efficiency concerning temperature was exhausted long ago, and does not produce any thermal or carbonised waters. The balneological field of Charleston, South Carolina, may be an exception. Within the line of the precambrian intrusions we still find thermal waters in an eastern fault, and carbonised waters in a western fault. This divides the district in the thermal Tahonic field and the carbonised Saratoga field.

We may call the districts of precambrian intrusions of eastern United States the districts of the Blue Ridge. In locations with very numerous mineral springs, we usually find a more central field of springs with increased temperature. In young volcanic districts this temperature is generally very high. We will learn this repeatedly in the seventh area. In old volcanic districts it is not so high. It is astonishing that thermal waters of the east are in connection with the oldest intrusions. The thermal springs centre belonging to the system of Adirondack Mountains is situated near Mount Berlin. Sand Springs, Massachusetts, and Lebanon Springs, New York, and maybe others not yet described, are in a district known as Taconic Mountains with a central point in Mount Berlin.

Sand Springs, Massachusetts, is a tepid spring of 24°C. and Lebanon Springs, New York, of 23°C. Sand Springs contain 0.0195% t. s. with 11.12% SiO₂ and 12.39% Ca., and Lebanon Springs 0.0413% t. s. with 13% Silica and 6% Calcium. Sand Spring is a submineralised tepid spring, and Lebanon Spring is a tepid low average mineralised spring.

The Tahonic Mountains are situated in the northern con-

tinuation of the Blue Ridge, but there is no evidence of volcanic intrusion and especially no evidence of precambrian intrusion.

Waubee Spring at South Williamstown, Massachusetts, is a cold spring of the Taconic Mountains with 0.0055% total solids, 67% earthy salts with predominant calcium carbonate. Silicon is only 6% of total solids and excludes this spring from the low mineralised New England springs which range from 11 to 35% silicon. It is also an exception from the springs of the following district of the fourth area overleaping to New England and containing 0.02 to 0.07% total solids. If Wawbeeka Spring should be separated from the tepid springs of the Taconic Mountains, we have to unite it with the sixth district of the first area, especially with the balneological field of southeastern New York. This shows the location of Wawbeeka Spring at the triboundary point of first, third and fourth area. The magmatic waters reaching in tepid condition the neighboring surface became somewhat higher mineralised toward the northeast at Williamstown, corresponding to the character of the New England area. South of Mount Berlin, unknown tepid springs may be situated as first springs of the first area. Toward east Lebanon Springs is the first spring of the fourth area and shows the character of fourth area by the double mineralisation in comparison with Sand Springs.

The sodium chloride field of the next district leaps in the east over to the presilurian volcanic ribbon, and there is crossed by a fault producing magmatic carbonic acid gas. The mineral springs there are Sodium Chloride Carbonated springs. This is the field we hear so much about—that of Saratoga Springs and the vicinity. The original magmatic waters of the Saratoga fault without the high sodium chloride mineralisation belong to the southern district of the Blue Ridge.

In the Saratoga field there is a well studied geological fault in the direction of northeast to southwest. This fault is known to geologists as Hoffman's fault; this fault is curved and slightly S formed. It is rectangularly intersected by weaker faults. This may be seen by the many rectangular knees of creeks and rivers. The most remarkable springs of this fault are the mineral springs of Saratoga Springs and Ballston Spa conglomerated at three fault intersections. A weaker parallel fault, with less known carbonated springs is a few miles distant to the east. The relationship of these different springs to the Hoffmann's fault is explained by Cushing and Ruedemann.

At Saratoga Springs, the basis are precambrian Crystalline

rocks. They are covered by Potsdam Sandstone, then Theresa formation, and on the top Little Falls Dolomite with the petrographic character of Hoyt-lime poor in magnesia. The strata are slightly declined. The faults have the direction of "Bstreichen." The angle of decline is not important.

The uppermost stratum of Ordovician, called black Canajoharie shale, is the surface rock where the Saratoga fault creates mineral springs.

At Ballston Spa two diagonal faults and a rectangular fault intersect with 90° and 45° about. The middle part of direction of Kayanderossaras River shows ordinate and abscisse. A parallel ordinate is indicated by the northern knee of the creek running to Loughberry Lake.

To the Hoffman's fault also belong Gurn Spring situated to the north. Between Gurn Springs and Saratoga Springs the other fault intersection mentioned must be suggested. This point is still undeveloped.

Quaker Springs belong to the weaker fault. The missing links of the neighboring springs are Adirondack Mineral Spring near Whitehall, and Reid's Mineral Spring near South Argyle, both in Washington County, New York. Albany Artesian Well with 1.05% total solids in Albany County also belongs to the Saratoga group. Franklin Springs with 0.6% total solids leads to the Syracuse field of the next district.

There is mentioned south of Saratoga Lake: White Sulphur Spring with a bathing pavilion.

The Hoffmann's fault is parallel to the Appalachian elevation and gets its principal northern concave curvation by the central point of the Adirondacks intrusion.

AREA IV District 3.

THE NORTHEASTERN SILURIAN AND DEVONIAN DEPRESSION.

The northeastern Silurian and Devonian depression of the eastern Mississippi area includes the principal part of the State of New York, except the mountain region of the Adirondacks, and the southeastern part of the state, but including the southeastern part of Ontario and the middle northern part of Pennsylvania.

It is the principal district of distribution of the Buffalo Medical Journal. It is very important for the American balneology and creates the special interest of the readers of our journal toward balneology.

The depression between the Appalachian Mountains, Ozark Mountains and Wisconsin usually shows palaeozoic deposits. The strata there do not occur thoroughly concordant. The

area became transitorially and locally dry in oldest palaeozoic era forming rock salt deposits. Later palaeozoic sections of a second submersion contain a high amount of calcium compounds and other earths. These sodium compounds and calcium compounds are more or less soluble. The state of New York and neighboring parts show this condition in the district questioned. The same conditions repeat southwest of the Wisconsin district in a relatively small ribbon.

Most of the mineral waters concerned are located in the Albany-Buffalo line. We learned that the waters of New England were of an overoxydised character, where they contain juvenile waters, and of a silicic character, where the origin of mineralisation is situated on the surface. We have to expect ascending magmatic waters in the Albany-Buffalo line. Such waters of oxydising character passing different strata which contain sulphur compounds and earthy carbonates lead to very complicated chemical reactions. Sulphur compounds may be oxydised to sulphuric acid and its compounds. A resulting excess of sulphuric acid may lead to deliberation of carbonic acid gas. A mixture containing carbonic acid gas, residues of organic substances, for instance crenic acid and its compounds, and sulfuric acid, may lead to a reduction forming hydrogen sulphid. The presence of iron may lead to formation of iron sulfates, to secondary precipitation of iron oxydul oxyde and may form acid sulfate springs. All these kinds of mineral springs are found in the upper state of New York.

The sodium chloride springs correspond to the older deposits. The real variation reaches a higher degree in younger palaeozoic sections. There we have to consider Ordovician to Devonian.

Chemically deliberated or maybe magmatic carbonic acid impregnating a sodium chloride extract of high concentration, we had already found in the Saratoga field. Farther to the east, we had already found reduced sulfide springs of the small field of Lake Champlain.

Therein occur two distinct types of mineral springs. They contain either more than 1% sodium chloride or 0.1 to 0.2% calcium sulfate calculated to water or an intermediary mineralisation or secondary derivatives.

For this reason the third district has to be subdivided into the field of brines, the different fields of sulfide waters, and the field of iron and acid iron waters.

The Brine Field of the Third District.

Between Albany and Buffalo, but north of this line, and with the center in Syracuse, New York, are large rock deposits of sodium chloride of old geological origin. In this

field they have some mineral springs belonging to the group of common sodium chloride springs. A southern offspring is the different springs of Glen Springs, New York.

St. Catharine's Well is a Canadian Sodium chloride water.
Different Sulfide Fields.

From Albany to Buffalo, the depression of the transcontinental fault enforced different crossing rivers to follow this line for a certain length. In the palaeozoic era and later there were many long narrow lakes connected by rivers with falls similar to the Niagara River, but lakes and rivers in a continuous straight line. Later the lakes on the plains of the Albany-Buffalo line became filled with detritus and drift. The Oneida Lake is the only concerned lake persisting. It was an easy pre-existing line for the construction of railroads and the excavation of the canal. The geological condition there as well, favors an accumulation of valuable mineral springs where the original rocks reach the surface, for the increased amount of inhabitants and travelers offered a better chance to find such springs.

In the Albany-Buffalo line, south of the 43° latitude is a large number of mineral springs, with about 0.15 to 0.35% total solids. More than half of these solids are ordinarily calcium sulphate. The amount of free and compound hydrogen sulfide is low, mostly below 0.01% weight.

West of Utica the sulfur springs are really within 43° latitude. East of Utica the boundary of Devonian and Silurian to the east bends east-south-east, and south-west from Albany bends again to a straight southerly direction. For this reason the sulfur springs of Otsego County and Schoharie County are about on the average of 20 kilometres more southward.

Local Anaesthesia in Surgery of the Colon and Rectum, Wm. M. Beach, International Clinics. 1. Eliminating terrorism associated with operations under general anaesthesia. 2. Absence of post-operative distress and complications. 3. The Anaesthesia is complete, thoroughly blocking the field, thus preventing shock. 4. It persuades the patient to undergo an operation because the detention from business is shorter and post-operative pain is less. 5. Skill in technic is achieved by virtue of the surgeon's care in gentle handling of a conscious patient. 6. It will teach him to handle tissues more deftly in general anaesthesia realizing that much pain and tendency to infection follows tearing and mutilating of soft parts. 7. Local anaesthesia conserves the patient's peace of mind, as there are many who will testify to its efficiency and complete relief with so little inconvenience.

Compulsory Health Insurance Bill (Mill's).

Address made by Dr. JOHN D. BONNAR, of Buffalo, representing the Medical Society of Erie County, before Judiciary Committee of the State Senate, at Albany, March 7, 1917.

I have the honor and responsibility of appearing before you today at the request of the President of the Medical Society of Erie County, Dr. Irving W. Potter, in opposition to the measure now before you. This society, of some 700 members, at a recent meeting, called for consideration of this bill, most vigorously and, without a dissenting voice, passed a resolution condemning the measure as pernicious, impractical and wholly out of harmony with the ethics, wisdom and progress of the times.

Gentlemen, the origin of this bill being shrouded in mystery, as far as the public, at least the medical part thereof, is concerned—no known parents, or, if it has such, apparently they are of the illegitimate type, unwilling to acknowledge their offspring. That a senator has been found willing to act as foster-parent and introduce the measure, is surely because he failed to realize its inception. When but casually studied its nature is mysterious and full of terms, commissions, panels, councils, courts of higher and lower degree, arbitrators, and all the trumpery imaginable. It is out of harmony with order and the eternal fitness of things. It is plainly unsuited for any place upon the earth, much less for the enlightened citizenship of this great Empire State of New York. To even think of it is to cause such feeling of indignation, words fail, and our emotions silently spurn its vicious purpose of adorning the bill with a halo of "charity," while its true nature is treachery to human rights. Shall people of this twentieth century suffer such mockery in the name of progress, while its nature is treason to liberty? Never! This suggests collusion that gives us ample cause for full and plain analysis. If the measure were clearly in the welfare of any considerable proportion of our citizens, we should ask that its sponsors give reasons for this attempt to press into law what is, upon its face, so unusual and pernicious a measure—facts most palpable, even on casual study.

Estimating 10,000,000 as the population of this state, and some 25,000 medical practitioners, it is readily seen that the average number of clients for each practitioner in the state, would be 400—at most 500. Whereas, under this "compulsory insurance bill," the so-called "panel" physicians, conservatively estimated at 2-5 of the whole—would number

ten thousand upon the "panels." Some eighty per cent of the entire population, or 7,343,000, those receiving \$100 or less per month wages, it is readily seen that each "panel" physician would have 800 patrons, while the other 3-5 of the doctors not accepting the lodge service, would have a clientele of 2,167,000, or on the average to each doctor of 133 persons. In the last analysis, however, it is seen that just about 1-5, rather than 2-5, nominally to be on the "panels" would have the entire burden of this whole "panel" or lodge ("work contract") practice, in its worst form, which would thus increase the clientele from 800 to 1,600, for each so-called "panel" physician. As 10 days' sickness per person per annum is the average, as figured by actuaries, we see that 1,600 patrons at ten days each, needing a visit per day if properly treated, would mean just 16,000 visits to be made by the "panel" doctor per annum. Coupled with this, also some 15 office calls per day, from such sick people able to come to the office, there would be added about 5,000 office visits required by the "panel" doctors per annum. This is wholly impossible as to stamp the measure as visionary and absurd. It would, however, at an estimated salary of \$3,000 for such lodge doctor, give him per visit the munificent sum of 16 to 18 cents per visit, or 26 cents if he got \$5,000 per annum.

Less than the aforementioned number of visits would be a neglect of the patient, while the making of such by the physician would amount to slavery, hence either the patient or the "panel" physician would be the victim of plain injustice.

Such a measure as this strikes at the very foundation of our constitutional rights of life, liberty and the pursuit of happiness. It is an open and palpable attempt to place upon the shoulders of the medical profession the onerous duty of giving of their time, skill and intelligence, for a mere pittance, the needed medical, surgical and obstetric care of four-fifths of the population of the state. Such a measure has no claim in equity nor justice, nor even in any scheme whatever of social economy. It is an opprobrium—a veritable marplot against liberty. It attempts by its commissions, boards of arbitration, and a dozen other new and wholly foreign functions, to hide its real mischief-throttling of freedom—an attempt to enslave a portion of the medical profession, in a most ingenious manner, by putting them in the light of "contestants" for what, under our principles of citizenship, is their inalienable right. Conceived, as it plainly is, in sin and (if it ever sees the light of day), brought forth in iniquity, we trust, gentlemen of this judiciary committee

of the Senate of the great state of New York, that you will see to it that this measure never comes out of your committee, as it is arbitrary, autocratic and entirely devoid of the democratic spirit, upon which this government is founded. On the other hand, if it ever sees the light of day, it will prove a monstrosity upon the body politic, and cast a dark cloud upon its fair escutcheon.

Note—This measure was voted down in the Judiciary Committee of the Senate, but, of course, may appear in a new garb at some later time, therefore needs watching—J. D. B.

Amoebic Dysentery. H. W. Soper of St. Louis, *Int. Clin.*, Vol. 4, Series 26, in a general article on the use of the sigmoidoscope, examined 30 cases during treatment by ipecac and emetine. All cases showed the typic lesions in the rectum or sigmoid and, in some, the diagnosis was made when the amoebae could not be demonstrated. The lesions may persist after clinical cure. Insufflations of 1:10 tannin and bismuth, heal the lesions quickly. Ipecac powder, even much diluted, caused severe inflammation without destroying the amoebae. (Note: The simplicity and rapidity of relief of various local applications through the sigmoidoscope is surprising. Even occult blood may come from an ulcer only 10 inches above the anus. Major conditions are usually diagnosticable without endoscopy and, unless inoperable, cannot be adequately treated through the speculum. Thus the diagnostic and therapeutic use of the sigmoidoscope is reduced mainly to very simple conditions, scarcely worth reporting from one point of view, yet when one considers the relief afforded and the obstinacy of these cases of almost insignificant inflammation and ulceration, more attention ought to be paid to this means. The writer has used the lateral posture and has discarded the window and most of the pneumatic devices, although occasionally air is pumped ahead of the instrument through a metal tube fixed in the obturator. Reflected light is inferior to direct, introduced by a slender, movable and removable staff. Discarding the complications of posture, pneumatics and reflected light, the sigmoidoscope is a very simple instrument. One cannot even reduce the manipulations to a system, on account of differences in the anatomy of the valves, etc. But, even with patience, one cannot always introduce it if he has respect for the danger of forcible manipulation.—Ed.)

Roentgen Treatment of Exophthalmic Goitre and Hyperthyroidism. C. A. Simpson, *Wash. Med. Annals*, March, reports 17 cases, all successful but 4, of which one was cancerous.

BUFFALO MEDICAL JOURNAL

A Monthly Review of Medicine and Surgery

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Sedentary (?) Occupations.

The custom of recording occupation in case histories, obviously is due to the bearing on hygiene, liability to exposure to weather, strains of various kinds, infections, etc. It is commonly understood that business men are of sedentary habit. Physicians commonly think of them as tied to a desk from 9 to 5, except for a hasty luncheon, as having little opportunity for recreation or the benefits of the open air. So far as our observation goes, referring of course to men in business for themselves and to those in some managerial office and without reference to clerks, this conception, however correct in the past, is so no longer. At any moment chosen at random during business hours, there is an average chance of finding the average business man in his office, about once in five times. He is seldom at his office before 10 or as late as 5. The luncheon period is rarely so short as an hour, and is often stated without apology by telephone clerks, as 11.30 to 3. This, of course, does not imply that the whole of the time is devoted to eating or rest, but it does mean that the business man is very far from being a desk-worker, and that the combination of business with entertainment involves hygienic risks quite as serious, as, though of opposite kind to, the former conception of a hurried and inadequate lunch. The business man is usually, to a large degree a traveling man, even if not literally a traveling salesman. Thus, he has both the disadvantages and the advantages incident to train riding, sudden change of climate and scene and of eat-

ing places, to irregular hours and enforced idleness, temptations due to freedom from the restraints of a methodic life in a restricted environment.

Quite aside from the fact that business duties themselves involve a radical change in the hygienic balance sheet of the business man, the modern office, in its heating, ventilation, lighting, furnishing, provision of toilet facilities and cleanliness and sanitary construction, is an antithesis to the description of earlier writers, literary or medical. There are survivals of the old stuffy or drafty office, with its uncomfortable chairs and stools, inadequate windows, flickering gas jets, gassy stove and accumulation of dirt, but they are rare except in small towns or the metropolis. The typic modern office is equipped with every practical mena of comfort, hygienic surroundings and saving of unnecessary labor.

Duties of the Medical Profession in View of War.

The medical profession, through its intimate contact with the people can exert its influence in a variety of ways.

It should encourage the naturalization of foreigners. Aliens born in enemy countries cannot now take steps to secure citizenship, but beyond registration and exclusion from the vicinity of military posts and points of military vulnerability, it is not now proposed to subject them to inconvenience, provided they avoid hostile speech and acts. As any civilian manifesting hostility is more or less in the category of spies, those who cannot conscientiously avoid such manifestations should be urged for their own protection, if for no other reason, to surrender themselves as prisoners of war. Unfortunately, this applies directly to a small part of the profession.

It is the obvious duty of loyal citizens and residents to give information of spies and plotters, but common sense should be exercised to avoid an injury to well disposed aliens as well as to avoid overwhelming the secret service with unfounded suspicions.

The ultimate military power of any nation depends, as never before, and especially to this country under existing circumstances—which reduce its actual military activities in the scale of immediate importance—upon general industrial efficiency and economy. For the average citizen, especially the one who has reached a place of fair usefulness, and who has dependents who would, by his absence on military service, ultimately require public assistance, the most practical patriotism is to hold his present job, to increase his efficiency,

and only slightly if at all to increase his charges for his service to others.

Mere entrance into war has cost every average man, woman and child \$70 in direct liability. This means about \$1,000 for every head of a family of moderate prosperity, as the average physician. We can easily stand this expense. The factor that strikes hardest at the spirit, patriotism and resistance of a people, is not the direct tax and the national debt assumed, but the indirect tax in increased price of necessities, which in our country, with its enormous productive power, will be due almost entirely to unrestrained speculation and exploitation. The country has already appointed a food director, and the people should insist that his function should be immediately and efficiently performed. Deliberate wholesale destruction or sequestration of food, as has been frequently practiced to maintain artificially high prices, should now be recognized as destruction of life, and offenders should be dealt with in accordance with general principles of martial law. The same applies, only less strictly, to gasoline, leather, wool, cotton, coal, building material and every other necessity of life.

One of the most practical and immediately necessary patriotic duties is to restrain unwise expressions of patriotism. Expressions of race hatred, prejudice against distinguished individuals of enemy countries, against the language, science and art of such countries, advocacy of cruel measures of war and the like, are cheap and foolish ways of manifesting loyalty, and do almost as much harm as expressions of disloyalty. It should be remembered that at least a fifth of the population of this country, and a larger proportion of the science and art of medicine, are ultimately derived from what are now enemy countries. In no way can we alienate sympathies for our own country and lead to actual danger, more than by puerile expressions of prejudice.

Another very practical form of patriotism is to recognize clearly that the protection of our country must depend mainly upon its regularly organized forces. With the exception of offers of unusual magnitude and of unusual forms of service and commodities, not easily obtained, the burden of war can be best borne by general, equable distribution, as directed by the government. The financial strength and available resources of the country can easily be dissipated in wasteful forms of private and semi-private philanthropy, which duplicate and confuse the functions of government. Even the time and strength of officials may be severely taxed by unnecessary resolutions of commendation and offers of assistance.

Every man should, so far as practicable, estimate how he

can best serve his country and how his country can best get into touch with him. It is a mistaken notion that the highest service we can render is to die for our country. Exactly the opposite is true. The brunt of the actual fighting must be borne by the young, not only for physical reasons, but because the man who weakens the economic strength of the country by leaving useful work and the care of dependents to be taken up by the people, does more harm than good. Similarly, the man who is competent to perform, either in direct military service or economically, functions of high order that cannot easily be filled by others, sacrifices his country in sacrificing himself. This applies especially to the medical profession and to students in various technical schools, including medical, who can better serve their country by completing their education than by enlisting prematurely.

Physicians, in particular, should recognize the various ways open to them, in and out of military and quasi-military service, should decide in accordance with common sense or in accordance with actual demands by the government, and should realize that it is not true patriotism to attempt to do more than one thing at a time.

The influence of physicians in their clientele may be equally valuable in directing patriotic aspirations and in checking unwise volunteering and, on the other hand, in rebuking those who seek to avoid an obvious duty, as for example in what has become too common, the attempt to hide from military service behind the skirts of a bride.

We are authorized to state that the Red Cross is recognized by the Medical Department of the Army as a worthy aid, but care should be taken to conduct its local activities in conformity with the spirit and technic of its organization, so that any unit can be promptly made available. Otherwise, medical preparedness should be on a personal or informally associated basis so as neither to conflict with the availability of individuals for more formal military service, nor to confuse and misdirect the normal medical energies of the country. For example, it is questionable whether a civil hospital should be organized on a military basis. It is extremely doubtful whether such hospitals will be needed by the army and navy, or whether they could be used without detracting from the established and equally necessary service to the civil population. A more practical plan would be for each hospital to estimate how many military patients and of what kinds, could be properly cared for, if necessary, without interfering with the regular work of the hospital. We question even whether the proper time has arrived for thrusting this offer upon a staff already greatly overburdened. It is scarce-

ly conceivable that such services will be needed for several months, at least. In formulating mobile units for military service, certain questions should be asked. Absolute sincerity free from desire for notoriety and exclusiveness need not be mentioned as prime requisites, but the units as formulated should be actually in accordance with Red Cross standards, or should be left incomplete. Will the members of a unit be promptly available for mobilization as required, are they physically fit for the exigencies of active service, who will take their places in the necessary work which they will leave behind, how will they be trained for the special duties, including what the civilian scornfully but rather unjustly calls red tape, does membership in such a unit conflict with services already volunteered or due in some other way, or do such units draw upon material which should be available for regular service? This last point is especially important, and in regard to it we quote a statement from the Surgeon General's office: "The promise of a duty such as would satisfy the conscience of some, coupled with a guarantee that there will be none of the discomforts of field service, would undoubtedly appeal to a large number of persons in the medical profession as well as in other walks of life." This is immediately qualified, however, with a high compliment to the patriotism of the medical profession in general.

A Priori Reasoning as to Pathogeny.

With the example of the late President Lincoln, we offer no apology for repeating this story: A hired man, discharged for coming to work late, went to his room and took his alarm clock to pieces. His comment was as follows: "No wonder it didn't go off, the engineer is dead." He was an ignorant man of course, but how about the physicians who reported cases of yellow fever derived from fomites, as from a lock of hair years after death; how about the classification of malaries; how about the demonstration that the germ of syphilis must be ultra-microscopic because the virus passed through a porcelain filter, whereas we now know that the real germ is about the largest of any with which we have to deal? And, by the way, how about the ridicule of the non-committal word **germ** and the tendency to supplant it by the word **bacterium**? Count the specific diseases of known micro-organismic etiology and, unless you have given the matter special attention, you will be surprised at the number of infections which are due to **germs** that are not bacteria. A great many elaborate theories of pathogeny, have been ruthlessly shattered, though as fully accepted, as the specificity of rabies and the present theory of immunization.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following. Pamphlets, quarterly and similar periodicals, reports, transactions, etc., will, as a rule, merely be mentioned.

Medical Clinics of Chicago, March 1917. Published bi-monthly by W. B. Saunders Co., Philadelphia, \$8 per year.

University of Buffalo, 71st Annual Catalogue of Medical Dept.

One of the most interesting features of this catalogue is the light it throws on a phase of medical economics. The graduates of 1916 numbered 35. The undergraduate classes number respectively, 1917—60; 1918—29; 1919—41; 1920—66; special students 8. It will be seen that while considerable fluctuation occurs, no notable change has been due to the increased requirements, and that, on the whole, the attendance has not declined proportionately to that of the country as a whole.

Antiprohibition Manual, published by the National Wholesale Liquor Dealers' Assn. of America.

Changes in the Pharmacopoeia and the National Formulary. U. S. Public Health Service Bulletin No. 107, by Martin I. Wilbert.

Buffalo State Hospital, 46th Annual Report, Dr. Arthur W. Hurd, Supt., for 9 months ending June 30, 1916.

The number of patients increased from 2,142 to 2,199. 67 were discharged as cured, 59 as improved, 3 as not insane, 143 died. On the average, 75 patients were on parole. The yearly per capita cost was \$167.54, farm and garden products having been raised to the amount of over \$6000 and \$9000 worth of articles having been made by patients. 48% of the patients were employed in some form of useful labor.

General Education Board, Report of Secretary, 1915-16.

Published by the Board, 61 Broadway, N. Y. Over 11½ millions have been dispensed during the year, ¼ million to medical schools.

Anatomical Names, Especially the Basle Nomina Anatomica ("BNA"). By Albert Chauncey Eycleshymer, B. S., Ph. D., M. D., Assisted by Daniel Martin Schoemaker, B. S., M. D. With Biographical Sketches, by Roy Lee Moodie, A. B., Ph. D. Octavo 764 pages, illustrated by numerous wood engravings and by two full-page plates in red and black. Extra muslin, \$4.50 net. Wm. Wood & Co., N. Y.

The list of anatomic names, in Latin, even including regional designations, is, on the whole, surprisingly small, occupying 84 loosely printed pages. 180 pages are devoted to brief biographies of anatomists. The remainder of the work is in the form of an index which is also a more extended list of anatomic terms, including proper names and English terms.

Handbook of Suggestive Therapeutics, Applied Hypnotism, Psychic Science. Henry S. Munro, Omaha, C. V. Mosby Co., St. Louis. 4th edition, 486 pages, \$4.50.

Some of the most valuable chapters in this work are those that might seem to be subsidiary. For example: The Guidance of the Sexual Instinct which, broadly viewed, gives rise to artistic athletic and inventive activities; Conservation of Energy; Abuse of Personality; Brutality of Frankness; Moral Stamina—A Therapeutic Power; Self Mastery as a Fine Art. The author is thoroughly practical in his use of suggestion, hypnotism, etc., and, so far as possible, conveys his personal mastery of these arts to his readers.

Food and the Principles of Dietetics, Robert Hutchison, M. D., F. R. C. P., London. Wm. Wood & Co., N. Y. 617 pages, with plates and diagrams. \$4.00, 4th edition.

The earlier editions of this work have been well received and the present edition brings the subject to date and has been improved in many details. The illustrations are strikingly instructive. For example, the picture of a loaf of bread, while not immediately recognizable to an American on account of the difference in shape, shows the composition at a glance. The average reader will be surprised to learn that $\frac{2}{3}$ of the volume is gas and that 40-50% by weight is water. The discussion of relative cost shows many divergencies from American prices and we are somewhat surprised to note that American cheese is rated at 6 pence per pound in England. The work includes both scientific and practical considerations, in considerable detail and is especially characterized

by the inclusion of information which one would not criticize the author for omitting but which is of the greatest interest.

The Newer Methods of Blood and Urine Chemistry, R. B. H. Gradwohl, M. D., St. Louis, C. V. Mosby Co., St. Louis. 240 pages, 65 illustrations, 4 color plates, \$2.50.

Two of the color plates are to illustrate the general use of the colorimeter. About a quarter of the work is devoted to blood, including the estimation of sugar, creatinine and creatin, uric acid, urea, non-proteid nitrogen, cholesterol, total nitrogen and chlorides. About the same amount is devoted to the urine, including the same analyses and also that of ammonia, sediments, bacteria, and the application of the phenolsulphonphthale in test. The remainder correlates the particular technical methods and interprets them clinically. A bibliographic list is appended to each chapter. This book well assembles what is known as to the newer methods of examination, really takes for granted what is sufficiently treated in older works, and displays great personal familiarity with the subject.

Transactions of the 22d Annual Meeting of the American Laryngological, Rhinological and Otological Society, held at White Sulphur Springs, May 5 and 6, 1916. Published by the Society, Dr. Wm. H. Haskin, Sec., 40 E. 41, N. Y. 442 pages, illustrated.

The Perry's Victory Centenary, 1913. Report of the State Commission, George D. Emerson, of Buffalo, Secretary. Printed by J. B. Lyon Co., Albany, 1916. 309 pages.

This is well illustrated, with portraits of the participants in the celebration and with pictures of historic places, ships, etc. The various addresses are included with a mass of historic papers of the utmost value. The work of the Commission which has naturally devolved largely on the Secretary, has been performed ably.

Annual Report of the Directors of the American Telephone & Telegraph Co., for 1916.

In 1876, at the Centennial Exposition, the first telephone was shown to the public but attracted little attention. In 1884, the number of telephones in use in this country, slightly exceeded 100,000. In 1900, they numbered a little more than 600,000. In 1905, there were over 2,000,000. At about

this time, competition reduced rates and increased efficiency and the growth has been rapid so that, at present, there are nearly 9,900,000 stations, or one to between 10 and 11 of the population. The physical investment is surprisingly small: about 71 millions, approximately divided as follows: telephones, 17 millions (less than \$2 a set); real estate $\frac{1}{2}$ million; office equipment, $\frac{1}{4}$ million; long distance plant 53 $\frac{1}{2}$ millions. The stocks and bonds, etc., amount to about \$600,000,000, approximately balanced by stocks of associated companies held, and by the physical equipment. The net earnings (including dividends and interest paid) amount to nearly \$45,000,000, nearly 8%. The gross revenue is \$270,000,000, about \$30 per station, the expenses \$190,000,000, about \$20 per station, making the net revenue on this basis, \$75,000,000. Last year, the exchange connections were 28,500,000 a day (about 3 per station) and the toll connections 889,000, or about 1 every 11 days for each station. All of this is highly interesting and the principal facts should be borne in mind.

Progressive Medicine, Edited by H. A. Hare and L. F. Appleman, Philadelphia, published by Lea & Febiger, quarterly, 6.00 per annum. Vol. 20, No. 1, March 1917, 319 pages, illustrated.

This number deals with surgery of the brain, head, neck and thorax; infectious diseases, especially meningitis and poliomyelitis; diseases of children and a review of laryngology. The reviews are by Frazier, Miller, Ruhrah, Crandall and Coates, and maintain the high standards established.

Annual Report of the Superintendent of the Poor of Buffalo, (Louis J. Kenngott) for the year ending June 30, 1916.

Until May 1916, medical services were rendered by 10 district physicians paid nominal salaries for their duties and engaged in private practice. Since then, 4 full-time physicians have been employed. With this exception, (charged to the Health Dept.) the upkeep amounts to less than \$15,000 for salaries and \$2,000 for office expenses, etc. Non-medical public charity was dispensed to the amount of about \$44,500 for groceries, \$9,000 for coal, \$1,800 for shoes, \$1,782 for vacant lot cultivation. Burials cost \$3,645, drugs \$2,179, other outdoor medical relief about \$250. \$1,686 was paid the various hospitals for emergency ambulance calls. 160 persons were cared for in "Homes" at a total cost of \$15,940; 4,573 in hospitals at a total cost of \$160,000. Approximately, \$184,000 was expended directly on account of medical and surgical

needs, \$55,000 for the relief of poverty. It will be noted that the administrative expense was about 1/15 of the total. A very favorable detail is that \$8,397 was refunded by recipients of temporary aid, and \$423 recovered from unworthy applicants. The number of heads of families assisted with out-door aid ranged from 580 in June to 881 in Feb., the rise and fall being quite gradual. On the other hand, the number of individuals sent to hospitals ranged only from 293 to 355 with little reference to season except that in July, the number was 762—unless this number includes those left over from the previous fiscal year. Of the 1514 families receiving out-door relief, the nationality, according to birth of heads of families which, obviously exaggerated the number of Americans in any possible racial sense, was as follows: American 33%, Polish 30%, Italian 15%, German 8%, Irish 31½% Canadian 31½%, English 2%, scattering 5%. The 4350 persons sent to hospitals were divided as follows: American 62%, Polish 11%, Italian 7%, German 5%, Irish 4%, Canadian 3%, Russian Jew 2.5%; scattering 51½%. The racial differences between dependency for ordinary poverty and for sickness and accident, are noteworthy.

Plan of Military Instruction of the Clinical Club of Albany, N. Y. Pamphlet, 52 pages, issued by a committee, Dr. Joseph A. Cox, Chairman.

This is endorsed by Surgeon General W. C. Gorgas who gives credit to the Club for the initiative, in a plan for local medical men to study the sanitary problems of their region, as they would arise in case of war. Beside containing various details as to normal military organizations and the general duties of medical officers, it consists of the working out of various assumed problems, as the mobilization of drugs, care of refugees, in camps and in available public and semi-public buildings, transportation of wounded, including available ambulances and substitutes, as motor cars, most eligible routes to insure rapidity and ease of transportation, with due regard to condition of pavements, etc. We trust that similar study of local problems will be made by the physicians of the various important towns in our territory and shall be glad to hear from those especially interested.

Cataract, Senile, Traumatic and Congenital. W. A. Fisher, M. D., Chicago; Chicago Eye, Ear, Nose and Throat Hospital, 119 pages, illustrated, \$1.50.

The author succinctly emphasizes the following points as

establishing the practical value of this treatise: 1: A new method of acquiring technique upon the eye ball with the aid of four week old kittens. 2: Discarding all kinds of eye specula and holding the lids away from the eye when operating the eye after injuries. 3: Dressing and treatment after cataract operations. 4: A modification of the Smith-Indian operation for cataract, making the removal of the lens safe and necessarily the operation of choice. 5: A method of treating injuries of the lens other than watchful waiting. 6: A systematic procedure for determining the treatment of congenital cataract.

The Accuracy of Certified Causes of Death, Reprint 363 from U. S. Public Health Service Reports. This is accompanied by a request from the Committee on Accuracy of Certified Causes of Death, Dr. H. Emerson, Chairman, under the auspices of the Statistical Bureau of the Metropolitan Life Ins. Co., Mr. Geo. H. Van Buren, Executive Secretary.

This gives the 189 Causes of Death of the International List, and a criticism by numbers, which is especially valuable in suggesting causes to be accepted without autopsy. The ideal classification of deaths must, for many diseases, recognize three factors: the nature of the pathologic process, the identity of the germ (animal or vegetable) producing it or some other essential etiologic factor, the location of the process. For example, pneumonia: What kind of a pneumonia is it from the standpoint of morbid anatomy? Is it a pneumococcus pneumonia or to some other bacterium or due to some essential cause, such as a chemic irritant or circulatory state not essentially involving a bacterium? Where is the pneumonic process located and what is its extent? A lobar pneumonia is not necessarily pneumococcic while a lobular pneumonia or even a bronchitis may be. A pneumococcic process, strictly a pneumonia from the bacteriologic standpoint and even from the pathologic response may be located outside the lung. Another practical consideration is that, while autopsy is highly desirable, it is not practicable even in a considerable minority of cases. A diagnosis may be thoroughly established without autopsy and may be in doubt with autopsy, not only on account of incompetence of the examiner or practical obstacles to ideally thorough procedures but because the death is essentially due to conditions of physiology rather than of anatomy. It seems inevitable that diagnosis must often depend upon clinical judgment and in many instances, as for suicides, the exanthemata, etc., such a diagnosis is quite dependable, as is recognized by the Com-

mittee. Perhaps it would be well, instead of specifying too definitely what causes of death may or may not be entered without autopsy, to allow generally for clinical diagnosis and to leave a special space on certificates for it. Something may be said in favor of peculiar and indefinite statements as to cause of death. "Old age" is unquestionably too freely used and often for ages so slightly advanced as to be disconcerting to any one of middle life. Yet there are numerous instances in which it is strictly correct though not closely analytic and in which it is practically impossible to analyse more closely. Death may occur without opportunity for observation and even a necropsy will not determine exactly which of the "atria mortis" was the first to fail at the last. Ridicule such an expression if you please, but it is deliberately employed to describe an experience that we all have had. "Old age" is far more correct in many instances than bronchitis or obstipation or myocardiitis. It is often confusing to attempt to distinguish between primary and secondary causes of death. A condition may be secondary in point of time and yet the essential cause of death. Indeed, one may even go so far as to claim that many serious conditions are scarcely capable of killing directly, but only by their more or less regular complications.

TOPICS OF PUBLIC INTEREST

The Medical Brotherhood has temporarily suspended its activities on account of disturbed political conditions. It should be distinctly understood that this organization was in no sense political, but it has been considered wise to avoid even the active attempt to preserve a proper harmony among medical men, without regard to nationality, at a time when the purpose might be misunderstood.

Increase in Price of Drugs. Since the outbreak of the European War, there has been an average increase to about 5 times the original prices. Some notable increases are: resorcin 38 times; benzoic acid 31; potassium permanganate 27; digitalis 35; arnica 14; guaiacol carbonate 19; sodium benzoate 18; acetphenitidin 17; saccharin 15. In most cases the increase has not been due directly to interference with importation of drugs that cannot be raised in this country, nor even to obvious increase of demand for military purposes but solely to the fact that we have not had the gumption to collect crude drugs easily obtainable and to extract their active principles or to manufacture synthetics.

State Board Examinations. (Condensed from J. A. M. A. April 14). There are 89 medical colleges in the U. S. that conferred the degree of M. D. in 1916, and 50 state boards including that of the D. C. and Alaska. 60 of the colleges are recognized by all boards, 9 by all but 1-3. Class A schools yielded 75% of candidates. Class B 16%. The average failures of Class A schools was 8.5%, of Class B 24%, of Class C 29.4%. Of the 3,518 graduates of 1916, only 2,799 (79.7%) took state board examinations, but 1,316 members of classes of 1912-16 were also examined, and 315 of 1911 and previous years, making a total of 4,430 examined. Many, of course, were reexaminations, but the total has fallen off considerably on account of reciprocal recognition of license.

Early Graduation of Medical Classes. It is probable that, with the approval of the War Dept., the University of Buffalo and other medical colleges will make an effort to graduate medical classes some weeks ahead of schedule, and possible that summer courses will be instituted so as still further to anticipate the graduation date of the classes of 1918.

Recent Graduates Available. Class of 1912, 4,482 graduated, 4,345 living according to general life table; 1913, 3,981 graduated, 3,890 living; 1914, 3,594 graduated, 3,530 living; 1915, 3,536 graduated, 3,495 living; 1916, 3,518 graduated, 3,500 living. 1917, estimated, 3,367 senior students, 3,200 to be graduated. Total living 22,051. Required for military service, on basis of 7 medical men per 1,000 troops,, 1½ million beyond present army, navy and national guard, 10,500.

The Charge of Grand Larceny made by a patient against Dr. A. W. Bender of Buffalo, has been dismissed by agreement.

Centenarians. David Mosher of E. Aurora celebrated his 100th birth-day, Meh. 30; Abraham Cole the oldest resident of Ulster Co., N. Y., died at Zena, Meh. 31, aged 104; Abdour Hopshe, said to have been born in 1802 in Tripoli, died in Newburg, N. Y., Meh. 14; Mrs. Missouri Kibbe Hawkins, the widow of a Jamestown, N. Y., druggist, died in N. Y. City, April 13, aged 102.

Medical Examiner. Senator Giehrst and Assemblyman Duff have introduced a bill in the N. Y. Legislature to make this new office elective instead of based on civil service examination.

Health of German Army. The general morbidity rate, based on monthly reports, has been reduced from 12% for the first year of the war to 10%. Typhus has declined from 5.6% to 1.4% ; diarrhoea from 2.8 to 1.8; Asiatic cholera from 0.32 to 0.24; scarlet fever from 0.18 to 0.15; tuberculosis from 2.9 to 1.7; nervous conditions from 24.3 to 21.5%. Spotted fever (probably what we call typhus, while typhus mentioned above is typhoid), intermittent (malarial?) fever and diphtheria, 0.44 together, have increased to an aggregate of 1.35. (Note that the basis of percentage of total morbidity and of the individual diseases is different). 70% of wounded are returned to active duty, 6.4 are permanently unfit for service, the remainder are used for garrison and camp duties. Of wounded sent to base hospitals, 90% are rendered fit for service, either in the fighting line or otherwise, 1% die and 9% are mustered out of service. A total of 1250 blinded have occurred since the beginning of the war. Small pox is reported to have developed from infection brought from the eastern front, 135 cases with 11 deaths having recently occurred in Berlin.

Restricting Boy Labor. A bill has been introduced into the N. Y. Legislature, prohibiting boys under 18 from blacking boots, selling papers, or working in any public place. Another bill raises the age of compulsory school attendance to 18. The legislative committee of the State Teachers' Assn. and the Lockport Board of Education oppose both. It is high time that we realized the tremendous economic disadvantages of carrying our proper reverence for education to an extreme.

State Hospital Maintenance and Development. The Sage bill has been passed by the N. Y. legislature, establishing a comprehensive plan of management and appropriating \$100,000 for new buildings at Middletown, and reappropriating \$300,000 from the Mohansic Hospital fund for new buildings on the Marcy site near Syracuse.

Farm Lands for Perrysburg (J. N. Adam Memorial) Hospital. Dr. Clarence L. Hyde has been authorized to rent 200 acres at \$900 a year.

Losses Among British Physicians. 400 were killed and wounded in the battle of the Somme and the aggregate losses have made a shortage of medical men. The Surgeon General, U. S. Army, considers that the U. S. is the only country at present having an adequate supply of medical men for civil and military needs.

Fire at Perrysburg Hospital, on the night of April 10, destroyed a bull valued at \$300, 7 cows and 4 horses, a carload of grain and a gas engine. The losses are supposed to be fully covered.

Smoke Nuisance. Niagara Falls has arranged through the City Manager (representing the European system and taking the place of a mayor or commission) to co-operate with the Commercial Assn. to reduce smoke to a minimum.

Niagara County Tuberculosis Hospital. With the concurrence of Dr. Otto E. Eichel, representing the State Dept. of Health, the present county hospital will be moved to the new site and will be used temporarily, pending the erection of a permanent establishment to cost \$100,000.

Lectures on Military Hygiene. Major James I. Mabee, M. D., U. S. A., will give a course at the University of Buffalo, beginning April 19. This course will be open to the medical profession.

Blindness in the U. S. Director Sam. L. Rogers of the Bureau of the Census, reports that 57,272 blind were enumerated (for registration area?). Detailed statistics have been compiled from replies from 29,242 cases, having an average duration of 16 years. 6.6% were born blind, 11.6% (including congenital cases) had been blind since the first year of life, 16.4% had been blind since the first five years, 30.8% were blind by the end of the 20th year. 47.4% became blind between the ages of 20 and 64 and 21.8% after this age. 51.4% of males and 41.8% of females became blind between the ages of 20 and 64, the difference being due to occupational causes. Blindness is a bar to marriage and, obviously more so for females, since sentimental reasons outweigh economic. About 1/3 of the males who became blind between the 15th and 19th years were married and about 1/5 of the females.

Medico-Military Materiel. The Military Surgeon asks us to co-operate in calling attention to the fact that it will take much longer and cost more to accumulate materiel than men, that, for example, it will require nearly a year to obtain the materiel for an army of 750,000 men and that this will cost \$10 per man. This fact has been attested by experience in previous wars. (However, it should be borne in mind that the factories for armament and ammunition have never been so well equipped as at present and that, with the development of manufacture in Europe countries to care for their own

needs, this source is almost immediately available for our own country. We are also exceedingly well supplied with accessory military materiel, such as automobiles, are almost independent of foreign supplies of raw material (which becomes materiel by manufacture) and that even such raw material as sugar and rubber which we cannot raise sufficiently or at all, is more easy of import into this country than most others. A somewhat amusing story is told that illustrates that the fear of great delay in securing materiel may be exaggerated. An order was placed for 35,000 shells and, accompanying the order, was a letter asking the firm to secure a boarding place for the inspector while the order was being filled. The firm replied that he could wait almost anywhere as their average daily output was 40,000).

Military Preparedness of the N. Y. State Dept. of Health.

All state health officers, numbering about 1000, will be placed at the service of the military authorities for making preliminary medical examinations of recruits. The Division of Laboratories and Research is assembling a mobile laboratory unit for diagnostic service. A large stock of bacterial vaccines, etc., is being prepared. 10,000 doses of vaccines against typhoid, paratyphoid and dysentery have already been supplied for state troops. Small pox vaccine for 3,000 has been issued. Nearly 5,000 c.c. of anti-pneumonia serum was used in over 400 cases on the Texas border. An outfit is being prepared to furnish calcium hypochlorite in convenient form to disinfect 50 gallons of water at once and to remove the taste by fixing the excess of chlorin.

The U. S. Civil Service Commission announces an examination, open to men and women, for medical interne. A vacancy exists at St. Elizabeth's Hospital, Washington, at \$900 and maintenance. Other vacancies will be filled from the eligible list. Applicants must not have graduated earlier than 1915, unless they have been continuously engaged in hospital, laboratory or research work in neurology and psychiatry. Examinations will be held on June 6 at various cities. (Note: As similar announcements are often received too late for publication before the examination, physicians desiring to enter the government service in any capacity, are advised to file their names with the editor).

Children in War Time. The Children's Bureau of the U. S. Dept. of Labor, calls attention to the increase in juvenile delinquency in foreign countries under the excitement of war and with mothers called from domestic to industrial duties,

to the effect of overwork and deprivation of the mother upon the mortality and morbidity of infants, even antedating birth, and is planning to avoid such dangers for our own country. The particular need of enforcing laws regarding child labor and school attendance and of safe-guarding children from both physical and moral dangers, is emphasized. It is stated that more women between the ages of 15 and 45 die from conditions directly or indirectly but plainly connected with child birth, than from any other cause except tuberculosis (which also is often due to the strain of pregnancy). It is estimated that 15,000 maternal deaths and 75,000 deaths of infants occur annually, from preventable causes, the latter depending largely on the death or disablement of the mothers.

Rockefeller Foundation Appropriations for 1916 amounted to over \$8,000,000 of which a little over 2½ millions were for war relief. We recommend to this organization, as a very practical philanthropy, the benefits of whose application would be widely distributed, an appropriation to rebate 10 cents a gallon on gasoline, which would bring the net cost of this product about to the high normal price. There are more than 3½ automobiles in the country, averaging something like 1000 gallons a piece on an estimate of 10,000 miles travel at an average of 10 miles to the gallon. This estimate is probably high but compensated for by motor boats, stationary engines and the use of gasoline for cleaning. However, the excess price comes to something like 350 millions. It is a pertinent though somewhat ungracious question to ask whether the 8 millions to philanthropy is, in any sense, part of this 350 millions.

Anthrax. The U. S. Dept. of Agriculture states that some centuries ago, this disease caused the death of 60,000 human beings in Europe. Its present small human death rate is believed to be due to a diminution of virulence. The modern treatment consists in the injection of 10 c.c. of anti-anthrax serum beneath the skin of one side of a large animal and 1 c.c. of spore vaccine on the opposite side. For sheep, which are peculiarly susceptible, the dosage is 1/4 these amounts. Anthrax may be borne by flies, a single fly bite being sufficient to infect a horse. Deep burial with avoidance of direct drainage into streams is efficient by imposing anaerobic conditions. If carcasses have lain on the surface, they should be burned, the fire being of sufficient magnitude to disinfect the soil.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

The **Medical Society of the State of New York** holds its 111th annual meeting at Utica April 24-26. The use of the present tense, as a compromise between the future correct at the time of writing and the past applicable to the appearance of the May issue, indicates the impracticability of reporting its transactions without delay till the June issue. We feel that every physician should hold membership in the State Society and take an active part in its work, and that we can show our loyalty in no better way than by leaving the report of its activities to the official organ.

The **American Proctologic Society** will hold its 19th annual meeting at the Hotel Astor, N. Y., June 4 and 5. An excellent program has been prepared and the profession is invited. The Secretary is Dr. C. F. Martin of Philadelphia.

The **Elmira Academy of Medicine** met April 11. Dr. A. H. Baker reported a case of Necrosis of the Clavicle, and Dr. W. A. DeWitt gave a paper on Local Anaesthesia.

The **Rochester Academy of Medicine**, Section IV, met April 11. Dr. Isaac Brewer spoke on Problems in Public Health Among the U. S. Troops on the Mexican Border.

The **Buffalo Academy of Medicine** has held the following meetings: Surgery, April 4, The Important Element in the Operative Treatment of Cases of Prostatic Obstruction, Dr. Arthur L. Chute, Boston. (To be published in a subsequent issue of this journal).

Medicine, April 11, Heart Block, Dr. Clayton W. Greene; Some Aspects of Syphilis in Children, Dr. Jacob S. Otto.

Obstetrics, April 18, Sterility—Causes and Treatment, Dr. Earl P. Lothrop.

The **American Gastro-Enterologic Assn.** will meet in Atlantic City, April 30 and May 1.

The annual meeting of **Alienists and Neurologists** will be held Monday, July 9 to Thursday, July 12, in the Red Room, LaSalle Hotel, Chicago, under the auspices of the Chicago Medical Society. Dr. George A. Zeller will act as chairman.

The program will be mailed June 28 with abstract of each paper. Contributors to the program are solicited. This is a society without a membership fee. Address, Secretary A. & N., room 1218, 30 N. Michigan Avenue, Chicago.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Evelyn Baldwin, Women's Medical College of N. Y., 1892, died at her home in Rochester March 24, of pneumonia following grippe, aged 55.

Dr. James Aloysius McMorrow, Bellevue 1898, of Syracuse, died at the French Hospital in N. Y. city, March 12, following an operation for inflammation of the appendix, aged 40.

Dr. Walter H. Curtis, Hahnemann of Philadelphia 1880, died at his home in Rochester Feb. 24, aged 56.

Dr. Marcus J. Williams, Vermont 1878, died at his home in Syracuse March 11, aged 63.

Dr. Thomas H. Hallett, Buffalo 1890, died at his home in Clyde, N. Y., Feb. 11, of pernicious anaemia, aged 56.

Dr. Charles C. Deming, N. Y. Univ. 1869, died at his home in Friendship, N. Y., March 5, aged about 65. He was an ex-president of the Allegany Co. Medical Society, formerly conducted a sanatorium and was for a time health officer of the town.

Mrs. Virginia Asher Dambach, widow of Dr. John Dambach of Buffalo, died April 12 at Little Falls, N. Y.

PERSONAL

Dr. Edgar R. McGuire of Buffalo has been appointed Prof. of Surgery in the University of Buffalo.

Dr. George Edward Fell of Buffalo is at 846 Webster Avenue, Chicago.

Dr. Ernest Milton Watson announces the opening of offices in the Electric Building, Buffalo, practice limited to Urology.

Drs. Wm. M. and Edward H. Mehl of Buffalo announce the removal of their office to 417 Franklin Street. Practice limited to Diseases of the Eye, Ear, Nose and Throat.

Dr. John L. Heffron of Syracuse, who has been spending several weeks in Florida to recuperate his health, has fully recovered and has returned to his home.

Dr. Karl F. Eschelman of Buffalo announces the removal of his office to 758 Elmwood Avenue on April 15.

Dr. A. L. Benedict of Buffalo would greatly appreciate information as to sites of Indian villages, burying grounds and similar recent discoveries.

Major W. W. Quinton, M. D., who has been for several years a resident of Buffalo, will leave shortly for Cambridge, Md.

OUR CONTEMPORARIES

The Old Dominion Journal of Medicine and Surgery, of Richmond, has been discontinued. It was a good journal which we shall miss.

The Pacific Medical Journal of April devotes many pages to newspaper and true accounts of malpractice suits. Those interested in medico-legal matters, especially professional self-protection, should secure this issue.

The Critic & Guide of April devotes much space to the discussion of war, including contributions by several pacifists. While there are some general principles with which we agree, when it comes to the relative merits of peace and war, we seldom encounter matter with which we disagree so heartily and in detail. We say this in a spirit of friendship.

The National Assn. for the Study and Prevention of Tuberculosis will begin the publication of a monthly journal devoted to tuberculosis. Dr. Edward R. Baldwin of Saranac Lake will be editor-in-chief.

The Annals of Medical History will appear as a quarterly, of large size, at \$6 per year, published by Paul B. Hoeber of N. Y., edited by Dr. Francis R. Packard of Philadelphia, beginning this spring.

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Association of Pancreatitis and Biliary Affections.*

CHAS. GORDON HEYD, A. B., M. D.

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The pancreas represents a self-contained laboratory of physiological chemistry. Sweet (1). In the body economy it subserves two great purposes: (1) that of the digestion of food; (2) as a control or balance through its internal secretions of the glands concerned in the general functions of metabolism.

When abdominal exploration became a routine measure in clean laparotomies some very remarkable pathological associations were discovered. Not the least important of these was the association of supposed pancreatitis and disease of the biliary apparatus. It was soon discovered that in cholelithiasis there was very frequently a hard, firm pancreas, although so far as chemical examination of the stool, urine and blood was concerned there was a normal pancreatic digestion. As a corollary to these findings it was soon appreciated that a hard pancreas was not necessarily a diseased one and that normal pancreatic function could exist in a gland possessing stony hardness. Pratt (2).

In reporting the statistics of the Mayo Clinic it was found that in 2611 operations on the gall bladder, the pancreas was involved in 7.6 per cent. In 325 operations on the common duct, the pancreas was involved in 22 per cent, and in 168

*Read before the Post-Graduate Clinical Society, as part of a symposium on Disease of the Biliary System, March 16th, 1917.

operations for disease of the pancreas 81 per cent were accompanied by or due to gallstones. Mayo (3).

Mayo Robson (4) places the association of gallstones, particularly when in the common duct, with interstitial pancreatitis at about 60 per cent. Quenu and Duval (5) represented the occurrence of gallstones with chronic pancreatitis as being about equal to 50 per cent, while in 83 cases reported by Williams and Busch (6) gallstones were found in approximately 40 per cent. Egdahl (7) has found that in 105 cases of acute pancreatitis gallstones were found in 42 per cent. Erdmann (8) reported seventeen cases of acute pancreatitis with gallstones or gallbladder disease in fifteen.

It is evident that the percentage of association is somewhere around 50 per cent in the acute cases and about 65 per cent. in the chronic cases. When we consider, however, that gallstones are only found in about 75 per cent. of the diseased gallbladders that come to operation the association of biliary infection and pancreatitis is probably higher than indicated. Here, however, is a noteworthy fact, that whereas gallstones have a preponderant proportion in the female sex (four to one), pancreatitis on the other hand has a reverse proportion (three to one) in men. It is surprising then that if pancreatitis is due to infection or affections of the biliary apparatus that it does not occur in the same relative sex proportion as does cholelithiasis.

A very great impetus was given to the study of the clinical and pathological phases of pancreatitis by the post-mortem discovery of Opie (9) in 1901 of the effect of a small stone in the ampulla of Vater with the retrojection of bile into the duct of Wirsung. This discovery was given great clinical value when Flexner (11) demonstrated that pancreatitis could be produced by the injection of bile into the duct of Wirsung, and further that bile from the gallbladder was less injurious than bile from the common duct. The only essential difference between bile from the gallbladder and from the common duct was that the former is incorporated with mucin and hence the colloid secretion of the gallbladder lessens the noxious quality of bile if by chance it should be retrojected into the duct of Wirsung.

The topographical anatomy of the common duct is also of particular importance and shows that the accidental occurrence of a stone in the terminal portion of the common duct must be extremely rare. In 38 per cent. of cases the common duct passes behind the pancreas while in 62 per cent of cases it traverses the substance of the head of the pancreas. Helly (12). In 83 per cent. of cases the duct of Wirsung carries the

entire pancreatic secretion, while in about 12 per cent. the duct of Santorini is the main duct. There is an anastomosis between the duct of Santorini and the duct of Wirsung in approximately 90 per cent. of cases (Opie 10), and in 54 per cent of cases the duct of Santorini may act as a substitute for the duct of Wirsung. Erdmann and Heyd (13).

The termination of the common bile duct and the duct of Wirsung is an unfortunate anatomical association, and this arrangement is subject to considerable variation. In addition, at the termination of the two ducts there is a circular band of non-striped muscle fibres known as the Sphincter of Oddi, which has great physiological importance in the ejection of bile and pancreatic secretion into the duodenum.

Letulle and Nathan Lorrier (14) describe four types. In the first type the common duct and the duct of Wirsung form an ampulla. This occurs in about 30 per cent. of cases. In the second type the duct of Wirsung joins the common duct at some little distance from its entrance into the duodenum. This occurs in about 20 per cent. of cases. In the third type the two ducts open independently into a fossa in the wall of the duodenum. This occurs in about 30 per cent. of cases. In the fourth type both ducts open independently at the apex of a caruncle on the wall of the duodenum. This occurs in about 20 per cent. of cases. Robson and Cammidge (15).

Accordingly, in only 50 per cent. of cases would the arrangement of the duct be such that a stone at the termination of the common duct could possibly cause retrojection of bile. Pancreatitis as ordinarily found in biliary disease is usually confined to the head of the pancreas, particularly to that portion of the pancreas bounded by the duct of Santorini, the duct of Wirsung and the duodenum and known as the triangle of pancreatic infection. Desjardins (16).

In the attempt to account for the etiology of pancreatitis three ideas have been advanced. First, that pancreatitis is a ductal infection from the duodenum. That infection from the duodenum is possible in some cases cannot be denied, but if pancreatitis were an infection by continuity the inflammation of the pancreas should extend throughout the ductal system. In practice such a condition is not ordinarily found. The pancreatitis, on the contrary, is of an interlobular type and one not primarily concerned with the ductal system. Moreover, the duodenum is relatively sterile (Gilbert, Dominini, Cushing 17), and neither the clinical course nor the post-mortem findings support the contention that infection by continuity of tissue is the predominant element in pancreatitis.

Mayo Robson (18) believes that many cases of catarrhal jaundice are cases of mild pancreatitis and he distinguishes two types: when the terminal portion of the common duct is involved he designates it cholangitic jaundice, and when the duct of Wirsung is involved he designates it pancreatic jaundice.

William and Busch (6) claim that the traumatism caused by the passage of a calculus results in dilatation of the Sphincter of Oddi and permits the entrance of infectious micro-organisms from the duodenum into the termination of the pancreatic duct. This is a noteworthy contribution and is probably a factor in a certain proportion of cases.

The pancreas is seldom involved in pure hemic infections so that the role of hematogenous infection is not particularly apparent, although the recent researches of Rosenow show that certain strains of streptococci have a somewhat partial selective affinity for the pancreas. Rosenow (19).

Bartels (20), Franke (21), Deaver and Pfeiffer (22) and Sweet (23) have drawn attention to the importance of the lymphatics as routes of pancreatic infection. Franke (21) was able to demonstrate that infection of the lymph gland at the sigmoid curve of the cystic duct produced lymphatic involvement of the superior pancreatic lymphnodes and further that the almost constant presence of a lymph gland between the common duct and the duodenum which would correspond to the triangle of pancreatic infection. Deaver (22).

Moreover, the intimate association between the pericolic lymph glands and the inferior pancreatic lymph glands is worthy of note in considering the etiology of pancreatitis. The lymphatics of the appendiceal region drain into the region of the hilum of the right kidney (Franke and Kunita) 24) and there is a very distinct lymphatic connection from the hilum of the right kidney to the left suprarenal gland and the pancreas. Bartels (20).

Mayo Robson (27), Moynihan (28), Rost, and Judd (29) have drawn attention to the uniform dilatation of the common duct found in patients having a second operation after a previous cholecystectomy. In animals devoid of a gallbladder the common duct is relatively and absolutely larger than in animals possessing a gallbladder. In people with congenital absence of the gallbladder the common duct is relatively and absolutely larger than normal.

The clinical fact that cholecystectomy and cholecystostomy both cure mild affections of the pancreas was for a considerable time perplexing. The dilatation that occurs after cholecystectomy is probably sufficient to dilate the Sphincter of Oddi and so cure pancreatitis by intraduodenal drainage,

while after cholecystostomy the biliary pressure is relieved by external drainage.

Archibald (25, 26) has shown that under ordinary conditions the pressure of biliary secretion plus the expulsive pressure of the gallbladder is sufficient to overcome the normal tonicity of the Sphincter of Oddi. However, the normal gallbladder is incapable of completely emptying itself, and its expulsive pressure is only exerted when the gallbladder becomes tense. Pavlov (30) demonstrated that although bile is secreted continuously it is ejected only intermittently into the duodenum. Cannon (31) drew attention to the chemical interaction of acid chyme and the duodenal mucosa bringing about a relaxation of the Sphincter of Oddi. It would appear that under certain conditions the Sphincter of Oddi might become spastic giving a condition of sphincterismus. Deaver (22).

Archibald concludes that many cases of pancreatitis are to be explained as due to chemical irritation of the pancreas from transient retrojection of bile. By means of a canula inserted into the common duct he was able to demonstrate that under the stress of a single sudden increase in biliary pressure there was a retrojection of bile into the pancreas before the Sphincter of Oddi relaxed.

Clinical proof to this contention would be suggested by a communication of Rehling (32), who in a case of acute pancreatitis incised the head of the pancreas for drainage and for some days thereafter bile came through the pancreatic drainage tube.

The fact that duodenal ulcer is so common in males, occurring in the same proportion as pancreatitis may point to a distinct association between lesions of the duodenum and the development of pancreatitis.

CONCLUSIONS:

1. Pancreatitis is probably due to both infection and chemical irritation.

2. The very intimate lymphatic connection between the lymphatics of the pancreas and the biliary apparatus is probably a factor in many cases.

3. Gallstones have a distinct bearing upon the production of pancreatitis, being present in approximately 50 per cent. of all cases. The incidence of pancreatitis and biliary disease is probably dependent upon the anatomical variations in the terminal portion of the ducts.

4. The passage of a gallstone with injury and dilatation of the Sphincter and ampulla of Vater probably initiates infection from the duodenum.

5. Pancreatic lithiasis probably acts in like manner.
6. By reason of its peculiar anatomy infection once induced in the pancreas is probably not spontaneously cured.

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Poliomyelitis. Horace Greeley, Brooklyn, Boston M. & S. Jour., April 12, has found that Rosenow's bacillus grows freely on milk at 70° F. and upward, and he believes that this has a double bearing on the etiology. Of 60,000 cases reported in epidemics, less than 30 were among breast-fed children. Moreover, the incidence corresponds closely with temperatures favoring the growth of the bacillus on milk. For instance, in N. Y. City, the mean temperature was 59.3° with 29 cases for May; 64.2°, 756 cases for June; 73.8°, 3863 cases for July; 73.6°, 3306 cases for Aug.; 66°, 780 cases for Sept.; 57.2°, 193 cases for Oct. This article is the most definite one on etiology that we have seen, and the contentions should be thoroughly examined. It may be pointed out, however, that the influence of temperature on incidence may depend on the action on carriers rather than germs in the direct sense—as in regard to yellow fever, whose germ was long regarded as proved to be killed by cold, whereas it was really the stegomyia that was frozen.

Samuel Guthrie, Discoverer of Chloroform.*

By DR. WILLIAM V. EWERS,

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(Continued from May issue.)

Anyone wishing further data on this subject is referred to the report of the Chicago Medical Society of February 6, 1888, and the article by Professor Hubbard in the transactions of the New York Academy of Science of 1892. Professor O. P. Hubbard, Professor of Chemistry at Dartmouth from 1836 to 1883, was Professor Sillman's assistant at Yale in 1831 and received and opened the packages of chloroform that Guthrie sent to Sillman, and he tells us that he was the first to repeat Guthrie's experiments, and this before Liebig and Soubeiran had commenced theirs.

Apparently neither Guthrie nor Soubeiran realized that they had discovered a new chemical compound. They thought they were making ethylene dichloride or "Dutch Liquor," as it was called, from the Dutch chemists first making it. Chloric ether was another name for this substance. That this was so for Guthrie, is shown by the remark of Professor Sillman, in the appendix of volume XXI, page 405, where he says that "Mr. Guthrie states in his correspondence that by reading the passage in my Elements of Chemistry, Vol. II, page 20, his attention was first directed to the subject." Sillman then proceeds to quote the passage. Guthrie thought that he had discovered a cheap way of making chloric ether.

It was not until 1834 that chloroform was analyzed by Dumas and its chemical formula determined.

The chloroform that Simpson first used, which was sent him by Waldie, a Liverpool chemist, is said to have been made by Guthrie; a curious coincidence, if true. When Guthrie heard of the anesthetic properties of chloroform, he tried it on the cat so as to be competent to administer it to the soldiers if necessary.

It is the irony of fate that the son of the discoverer of chloroform should have had to undergo two operations without the benefit of anesthesia. This son was an officer in our army, serving with the troops in Mexico, and had been wounded in the knee by a guerilla. He lingered a month, and after suffering two amputations of his leg, was only released from his sufferings by death. In the letter in which he tells his daughter about the anesthetic properties of chloroform he also informs her of her brother's death.

It was thought by Guthrie and Sillman that chloroform might have some medicinal value. In order to determine this point, Guthrie sent some to Sillman who distributed several bottles among his medical friends. In the appendix to vol. XXI there is a report by one of them, Dr. Eli Ives, Professor of Theory and Practice of Medicine at Yale. All the patients except one, took the medicine by mouth; this, a pulmonic case, took it by inhalation. The most probable reason that its anesthetic property was not discovered at this time, was that the chloroform was not pure but in alcoholic solution. It was not until several months later that Guthrie produced pure chloroform. He was induced to do this by a remark of Professor Sillman at the end of vol. XXI, where he asks if a method cannot be devised to detach the alcohol from the chloric ether "and obtain the latter concentrated and in quantity."

Dr. Ives' report is dated January 2, 1832.

There are several other articles in vol. XXI by Guthrie dealing with chemical experiments and methods of manufacture. In vol. XXII he has an article on the production of pure chloric ether. One of his interesting experiments though not recorded in this journal, is with the French sugar beet, which he raised one summer. The crop of beets was large but the quantity of sugar obtained small. This ended his experiments in sugar beet raising.

With the exception of volume one, I have searched all the volumes of the American Journal of Science and Arts up to the time of Guthrie's death to see if there were any other articles by him; unfortunately none could be found. It seems strange that his contributions to science should be limited to this short space of time. Whether he wrote for other journals I do not know. The only explanation I can see for this is, that at this time his sons had reached an age where they could relieve him of many of the cares of his manufacturing interests, enabling him to devote more time to his laboratory. Later one of them moved west and I presume the other became so engrossed with his own affairs that he could not help his father to any great extent.

He is said to have had a secret process for manufacturing alcohol that produced a very fine product. This secret he never revealed, so we are unable to judge of its value. Though the most important part of biography is to record what a person has accomplished, to me that which tells of the man himself is far more interesting. Fortunately for me there are still persons living who knew Dr. Guthrie, so we are able to have a better insight into his character. Unfortunately for us there is no picture of the Doctor in existence.

He only had one taken. The numerous explosions through which he had passed had not improved his looks, and besides he had the *tie douloureux*. When the Doctor saw his picture he destroyed it, saying if he was as damn homely as that he did not want his descendants to see it.

He was a rather quiet man, making frequent use of the words yes and no. Though taciturn with strangers he was free with his friends. That he was liberal, at least with his family, his letters show. In most of them he mentions enclosing ten, twenty or more dollars. He had quite a library for those days, though books on chemistry and encyclopedias are said to predominate. Still works of fiction were present. He considered that the library was for the use of the family, and there were no restrictions, even on the children, as to what they should read. His granddaughter says that the only rule she remembers the Doctor was particular about was that no one should turn down the leaves of the books.

In regard to children, we are told that he did not believe in the use of the rod as a means of discipline. His descendants point with pride to the fact that in spite of such views, his children all turned out well. Dr. Guthrie was always interested in the progress that was made in science and the arts. Knowing his interest in such things, the villagers of Sackett's, on his return from New York, always expected a description of anything new or wonderful that he had seen. His grandson, Ossian Guthrie, states that he well remembers his telling of the discovery of Daguerre; the Morse telegraph, and the year-running clock. On the trip when he saw the latter he was accompanied by a friend, a Mr. Harlow, who possessed great mechanical skill. A few days after their return, Mr. Harlow produced one of these clocks, which he had made, to the delight of the village.

The Doctor gradually gave up the practice of medicine, and during the latter years of his life practiced very little, though he would take a case now and then. There is a story that a certain young lady, who had an arm that was either diseased or injured, which, tradition does not say, was advised by different doctors to have it amputated. Her parents finally took her to Doctor Guthrie, who saved the arm. Tradition does not say if the grateful patient paid the Doctor. The Doctor was evidently fond of his little joke, for when he saw the batteries that were used in connection with the telegraph, he made one, which he used to shock the villagers.

That his sense of humor did not desert him even when he was the victim, the following seems to show. On one occasion he placed some powder under the stove to dry and then went to bed. During the night the powder exploded. Fortunately

the doors opened outward so no great damage was done. On being thus rudely awakened the Doctor's only remark was: "that was a damn Guthrie trick."

In his later years he had to face adversity. Sackett's depended for its prosperity upon its importance as a lake port as well as its proximity to the garrison. The railroad was now pushing its way into the north country, and commerce turned from the lake route to the new channel. This of course affected Sackett's adversely, and undoubtedly contributed to the decline of the fortunes of the Doctor and his sons. The son who died in Mexico left his affairs in bad shape, and the other one failed for 50,000 dollars, a large sum for those days. The Doctor evidently faced the situation philosophically, for in his letters there is no complaining. Instead he took a hopeful view of life, and made plans for his future activities.

It was in this frame of mind that he died, October 19, 1848.

Such was the man who lived and worked in one of the remote parts of our state nearly a hundred years ago. The house where he lived is still standing, and it seems that it would be fitting, because of his discovery of chloroform, if at some time our state society would mark the place with a memorial tablet.

I wish to extend my thanks to those who have so kindly helped me in the preparation of this paper. Especially am I indebted to Mr. T. S. Chamberlain of Chicago, grandson of Dr. Guthrie, for his indispensable help in collecting much of the data. I also wish to thank Mr. Pettit of Sackett's Harbor for his kindly advice.

Fracture of Trapezoid. A. Mouchet, *Presse Med.*, Oct. 9, 1916, reports a case in a female weaver, aged 30, who was suddenly incapacitated while lifting a heavy bolt of cloth with the hand strongly flexed (50 kilos, with assistant lifting at each end of the bolt). A transverse fissure of the trapezoid alone was found radiographically, with a sort of dorsal eversion of the fragments. Warm bathing and a retentive dressing with a soft wad, resulted in healing in 3 weeks, but with an osseous projection on the dorsal aspect of the trapezoid. He considers isolated fracture of this bone as unique.

Apparent Case-to-Case Pneumonic Infection, wife to husband, is reported by F. S. Lister in the *Med. Jour. of S. Africa*. Strain G. was isolated and demonstrated serologically—this being rare in experience, C having been found in all of 9 recent cases in Europeans.

SYMPOSIUM ON ANAEMIA.

Dr. L. NAPOLEON BOSTON, Philadelphia.

1. To the ultra scientific physician the pathologic classification of anaemia appeals most strongly. To the practitioner the clinical classification is the far more significant.

2. I have employed numerous proportions of iron for many years, and am frank to admit that in the majority of cases, the results obtained are less favorable than those given by the use of other remedies. Food rich in iron, that is available through digestion, are preferable.

3. Whenever the cause of the anaemia present can be ascertained the treatment is governed by such data. In those cases not the result of advancing cardiac, renal, hepatic disease, or carcinoma, excellent results follow the use of readily digested foods, meat juices; and special attention to the gastric intestinal tract.

4. A broth that I use in the treatment of anaemia is as follows:

- (a) 1—One pound of ground lean beef.
- 2—Two quarts of water.
- 2—One raw potato ground or crushed.
- 4—One or two stalks of crushed celery.

Mix this together, and allow it to stand in a cool place for from eight to twelve hours.

(b) Place over the fire, and allow it to steep slowly until the volume of liquid approximates one quart.

(c) Strain through a towel, and place on ice.

(d) Give the patient six to eight ounces of this broth three times per day, heating for each feeding, and seasoning to suit the patient's taste.

This together with the administration of red bone marrow proved to me in the treatment of sixty cases of anaemia that the red blood corpuscles, and the hemoglobin were more rapidly increased by this method, together with the fact that the patients were always fed liberally of green fruit and vegetables, than by any other method I have yet employed.

Dr. JUDSON DALAND, Philadelphia.

I prefer not to express an opinion as regards the best classification of the Anaemias, but would like to dwell strongly upon the importance of the opinion that pernicious anaemia is usually a secondary anaemia, and that often the primary

cause cannot be discovered; but failure to discover the cause does not entitle the anaemia to be considered as primary.

Upon the whole, I have been absolutely unable to convince myself that in any ordinary anaemia any preparation of iron is of any special importance; and not infrequently I order an excess of iron-containing food, more especially spinach. In my judgment, anaemia, independent of iron starvation cannot be benefitted by the administration of iron. So far as I have been able to ascertain, most of the iron administered by the mouth escapes by way of the bowels.

Successful treatment of anaemia depends upon first, the discovery of the cause, and second, ability to remove it. A common and frequent unsuspected cause of chloro-anaemia is due to absorption of decomposition products in the colon, and some times to results of fermentation of colonic contents. Another common cause is insufficient intake of oxygen, due to insufficient respiration; and still another is an unrecognized, latent, chronic septic focus, which may be anywhere, but which is more usually in the mouth, tonsils or nasal cavities. When the organism is the streptococcus haemolyticus, very severe anaemia may occasionally be the consequence.

Dr. ANTHONY BASSLER, New York City.

Answering the five questions contained in your letter of request, I offer the following:

1. "What do you consider the best classification of anaemias, based on clinical and pathological data?"

There has been little advance in the classification of anaemias. The best at present is still the old clinical one. This is the simplest and the most practical, although it is far from pathological in an etiological sense or even in tissue change.

2. "In what kind of anaemia and with what proportion of success is the administration of iron indicated?"

In the secondary anaemias of all types. In the primaries of all grades (and there are many up to the border-line cases of true dyscrasis). But when true pernicious anaemia or the true leukemias exist, its use is not of considerable value.

3. "Do you prefer inorganic, artificial organic forms of iron or those naturally present in foods?"

In the mild and moderate degrees of secondary anaemia organic iron and heavy iron-bearing foods (meats, yolk of eggs, green chicory, cabbage, spinach) answer. In the more severe, the inorganic plus the ferrous types of foods. No

form of foods answer in the leukemias, a generous diet answers as well as any and is the best one can advise.

4. "Mention any special preparations found useful. What kinds of anaemia are independent of iron starvation, that is, develop on a diet sufficiently rich in iron and cannot be relieved by giving iron in any form?"

In the secondary anaemias of severe grades fresh Bland mass, tincture ferri chloride and pyrophosphate of iron. For the moderate and slight grades, liquid ferri albuminate, liquid ferri and manganese peptonate, ovoferrin, reduced iron. For hypodermic administration, green iron citrate and iron cacodylate in all grades. In the leukemias the arsenic preparations answer best, the wisest plan being to use the hypodermic method and solutions of iron arsenite, Fowler's solution, and odium Cacodylate. The anaemias independent of iron starvation are pernicious anaemia and both of the leukemias.

5. Please state your views as to absorption, assimilation and elimination of iron, with special reference to the nature of anaemia as a failure of assimilation or an actual destruction of hemoglobin."

There are instances of anaemia in which the iron of foods are rendered impossible of resorption by it being acted upon by free sulphur gas ($H_2 S_2$) in the bowel and its change into insoluble sulphide. Here the hypodermic administration works best. I do not see how there could be a disorder of over elimination of iron from the general circulation—excepting, of course, a frank haemorrhage for any reason. Iron from the circulation is only eliminated by the pigments of bile, urine, etc., and this demand of iron is small, even in greatest activity of function. The main point in therapeutics of anaemia is to get the iron into the body in combined state with the tissue. At best the body takes up iron slowly, and when in a real blood dyscrasia exists, like pernicious anaemia the slow assimilation cannot meet the demands for hemoglobin content. Here, however, the main trouble is in the body. According to its degree, the hemopoetic apparatus does not replenish the constant utilization and normal breaking down of erythrocytes. The practical point is not iron deficiency, but deficiency of erythrocytic body formation in which iron is only one part of the complicated organic tissue chemistry. It is being taught and believed that pernicious anaemia is a degenerative disease of the erythrocytes—it is more logical to believe that the blood condition is one of failure of production of new cells to meet those constantly breaking down in normal physiology.

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The Newspaper and the Medical Profession.

A few years ago, the physician regarded the newspaper as a factor only of his extra-professional life; indeed, not a few physicians of good standing rather prided themselves on not keeping in touch with the political and other news of the day. So far as the newspaper was considered as bearing on professional interests directly, the main topic of discussion was the quack advertisement and the closely related ethical problem as to how far the social and other extra-professional activities of the physician should appear in the public press. As to the latter point, it was disputed to what extent an officious reporter had intruded into the privacy of professional practice and to what extent a physician, nominally ethical, had connived with the newspaper man to secure publicity in an underhand manner, quite analogous to that for which the quack openly paid. Of course, anything of great public interest developing in medical circles, usually found its way into print, but news of this sort was rarely accurate and usually such as involved scandal of some sort or, at least, sensationalism.

Gradually but quite rapidly, a marked change has taken place. The problem of the quack advertisement remains unsolved, except as a limited number of lay publications have voluntarily eliminated such matter and as legislation, while scarcely able to touch matters of ethics in a vital spot, has at least imposed certain requirements as to competency on all

practitioners, irrespective of ethics, and certain requirements as to honesty of composition and claims, upon foods, drugs and various other articles of merchandise. As to mention of physicians, it is pretty generally agreed that social, political and other activities may be noted as for anyone else. The better class of newspapers, physicians and laymen, agree that the attendance of a physician upon a case should not be published, and that such a violation of good taste, even if not of good ethics, reacts to the detriment of the physician. The lower class of newspapers obviously do not follow standards of either ethics or taste, the lower class of physicians may still court such publicity and it may do them good—in the business sense—among the lower class of the laity. At any rate, it is pretty generally agreed that about all has been said upon these subjects that can be said.

Newspapers of the present publish medical news as of other sciences or organizations, and, on the whole, without attempt at sensationalism and with a genuine spirit of giving to the public matter which is of real public interest. Errors of general conception, not to mention mistakes in technicalities, often occur, but probably no more frequently than in reports of electric, geologic or other scientific news. The fact that every community of any considerable size has a daily newspaper, and that cooperation has secured a very perfect means of securing news from the entire world with surprising promptness and accuracy, renders the invasion of the medical field by the public press, valuable even to the medical profession. For example, the epidemic of poliomyelitis has been put before the medical profession in a way that could not have been accomplished by the medical press, except, of course with regard to technical details. Notices of medical meetings are also published with accuracy, instead of the occasional haphazard announcement that Dr. John Smith, of our city, was elected vice-president of a society of doctors held in some other city. Discoveries in medicine are also announced more promptly than and, on the whole, with quite as good judgement as to their scientific importance as in medical journals. The organized profession and its representatives in sanitary official positions and in private organizations to secure hygienic and sociologic reforms, regularly employ the public press to reach the laity and, by reiterated advice and information, the laity has become educated to a knowledge of the fundamental principles of hygiene and sanitation and indeed of medical science itself, fairly comparable to what it possesses of any other art or science. Obviously, the individual layman, according to his individual intelligence, has very different degrees of appreciation of

matters bordering on any form of technical knowledge but, as a profession, we must acknowledge a very general increase of intelligence in the cooperation of the laity.

It may be claimed that the curtailment of the more flagrant forms of quackery is due very largely to the increasing attention of the daily press to medical matters, and that the news items thus published go a long way toward counteracting the harm of quack advertisements in adjacent columns.

Any innovation arouses criticism. It has been charged that public officials, officers of philanthropic and educational organizations, private physicians writing upon medical and hygienic subjects in lay periodicals, discoverers and those in charge of society programs, have sought personal glory or indirect financial gain under cover of reaching the laity through the popular press. It has been seriously proposed to prohibit the publication of medical information for the laity, except by duly appointed representatives of the profession, and equally seriously objected that such a limitation was merely an attempt to monopolize publicity by the elite. We have already discussed the special issue as to whether a prominent man should enjoy an ethical license not granted to the profession generally and, while we have not indulged in attacks on those who have apparently assumed such license, we have declared unequivocally in favor of the principle that an ethical rule should apply impartially to all. As in the case of the minor problems of the past, these problems are gradually working their own solution by the establishments of canons of good taste and good sense. Most of the profession seem to feel that whatever glory or gain incidentally attaches to the sincere performance of any public service, either in an official capacity or as a matter of public spirit, is allowable—and this sentiment is quite in accord with the ancient prohibition of muzzling the ox that treads out the grain. This sentiment does not prevent the exploitation of either public service or private philanthropy by individuals but, in the long run, insincerity is a boomerang and the man who seeks notoriety, though successful, finds that he has got just what he sought and that very few confuse it with fame.

As in other instances, standards of ethics, or rather rules of conduct, vary with time and locality. For example, in Paris, medical journals have for some years been regularly on sale at the public kiosks. Here, while recognizing that a medical journal must be to some degree accessible to such members of the laity as may have a legitimate interest in it, the general sale of medical journals to the laity is regarded

unfavorably. A recent issue of the Bulletin of the Society of Medicine of Paris, announces that the Temps, a Paris newspaper will publish the transactions of the Society providing 50 of its members subscribe—subscriptions being received for as short a period as three months. Incidentally, it may be noted that Paris newspapers are much smaller and more expensive than American dailies, though probably quite as valuable on account of condensation of news and the much smaller average space of an advertisement. For example, the Temps has a regular annual subscription rate of \$11 a year, but it is offered to members of the Society at \$8.

A suggestion of this sort, made without apology, and certainly with no consciousness on the part of the editors of the Bulletin that critics might attribute improper motives to them, but on the contrary with a frank appeal to its readers to benefit by a favor which will secure a valuable publicity to the labors of the Society, seems radical to us, but it is no more radical than the present accepted customs of our own country would have seemed to our predecessors. It should, therefore, be considered without prejudice in either direction, as an issue that may ultimately arise in our own country, and that may solve many financial and administrative problems with which medical journalism is confronted.

Whether this or any other particular issue arises, and however any such issue may be decided, the general fact must be clearly recognized that, spontaneously, without premeditation on the part of either professional or public journalism, and almost without realization on the part of either, these two lines of publicity have been approaching each other. Neither can ignore the existence of mutual interests and the possibilities of mutual benefits, not to mention the benefits accruing to the public. A return to the old conception that the newspaper or any other periodical had no concern with medicine, is out of the question. On the other hand, the general ethical principles on which this conception was based, must be preserved, however much the rules of conduct depending on them may be relaxed. As has been implied, the problems which now seem difficult will probably solve themselves gradually. It does not, therefore, seem advisable to attempt to form methods of solution which the future may show to be impracticable and fallacious, just as the prohibitive methods which our predecessors would undoubtedly have formulated if they could have foreseen present conditions, would now be recognized as unwise. But the main fact of the close relations of medicine to the public press must be kept in mind and all who have the influence to direct those relations into proper channels, should be on their guard to prevent un-

worthy exploitation of publicity, without obstructing natural currents toward the accomplishment of great public good.

Antagonism to the American Medical Association.

We note with considerable regret, in several of our exchanges, either on the part of editors or contributors, a hostile spirit toward the A. M. A. Some even went so far as to gloat over the diminished attendance at Los Angeles—a perfectly natural result of mileage and distribution of population—as an indication of loss of prestige. Subsequent experience has, of course, modified whatever force the criticisms may have had at the time. There is vague hinting at graft, talk of machine rule, criticism of the past conduct of men in power, complaint of the space and expense devoted to attacks on proprietary medicine, objection to various details but, fortunately, little or no open charge of present mismanagement.

The writer's first A. M. A. meeting was at Nashville, in 1890; he was one of the members to whom the revised system of government was submitted in 1901; one of the little group of those affiliated with the Medical Society of the State of New York who attended the Saratoga meeting in 1902 and received much individual courtesy and the official cold shoulder; one of the increasing party in the said Society to advocate reunion of the profession at whatever cost. Without wishing to appear ungracious, the opinion may be expressed that this cost has been the sacrifice of practically every characteristic of the Society save its name and hundred odd years of existence. And, in all fairness, it must be acknowledged that the wonderfully complete system of national, state and local organization achieved, the growth of the organized profession in numbers and influence, the higher grade of scientific work established for meetings, the control of medical education and numerous other benefits, have outweighed all preferences of methods and detailed policy.

We bespeak, therefore, the loyal support of the A. M. A. and of its secondary and tertiary branches and we hope that every reader will realize that both his self interest and his duty as a member of a profession and a citizen of potential influence are only half fulfilled unless he is enrolled in the respective organizations. Without such enrollment, he misses many opportunities for improvement in his art, is deprived of many benefits of a social and practical nature, and his influence on public health, professional improvement and legislation becomes almost nil.

At the same time, without disloyalty or dissatisfaction

with existing conditions, it is worth while to regard the attacks upon the present system of organization, as warnings of what might, under certain conditions, become a serious menace to the united medical profession. There are a great many points of issue, as for instance, the organization of a state society as a permanent senate with membership to be earned by preliminary service as delegate, rather than on the ipso facto basis of county membership, which involve no matter of principle, but in regard to which, local opinion and precedent might well be consulted. In general, it seems that the bond of union would be no weaker if more elastic.

Those of us who remember the general meetings of the A. M. A. and of the State Society, who have been guests of the Canadian Medical Association, etc., also realize the advantages of small membership allowing a purely democratic, instead of a more or less representative form of government. The A. M. A. has outgrown the feasibility of government by the open session of members, yet we miss the active participation of the delegates in strictly medical debates, and many members and local organizations complain of the establishment of a superior governing body. It would seem possible to introduce the principle of the referendum into the government of the A. M. A. and to allow the initiative of legislation, at least by suggestion, at the hands of every member in good standing or by resolution of any component organization. A great deal of the dissatisfaction at present expressed could be dissipated if there were a safety valve for the free expression of opinions, verbally or in print, in such a way as at least to put them before the membership of the Association. And we are optimistic enough to believe that such return to democratic principles would be of value in more ways than as a safety valve.

A matter that deserves serious consideration, is the fact that the A. M. A. is, from various sources, gradually piling up a surplus of no small magnitude. With every confidence in the present management, there is ample precedent in history for expressing the fear that some time, great wealth and great power may prove to be a temptation to unwise use of these levers, even if personal gain is not attempted. It is already time to give careful attention to this problem, if for no other reason than that its mere presence affords an excuse for hostility.

The Opportunity of the Medical Profession.

The worst problem with which the medical profession of the whole civilized world has had to contend, for many years,

is excess of its own numbers. Other problems may seem worse because they involve departures from ideals of a higher order than dollars and comfortable living but there is no getting away from the fundamental importance of sound economics. Moreover, in the aggregate, disregarding individual instances, every higher ethical problem can be reduced to the economic basis. Why do quacks exist? Why do surgeons and others split fees surreptitiously? Why do doctors standing high in society and the church, do abortions? Why do doctors steal cases? Why do they go to the limits of dishonorable procedures especially for the sake of attending cases from which they will not receive a cent directly? Why are many men incompetent and unprovided with needed books and instruments? Why is there constant friction between the medical and pharmacal professions over counter prescribing and office dispensing? Is there any higher ethical problem which, barring individual crookedness, can not be explained by the fundamental fact that there are more doctors than can find reasonably profitable employment?

Never in the recent history of medicine has there been a time when the prospects of comparatively rapid relief of this fundamental economic evil have been so encouraging. When we pause to consider the reasons, it seems cold blooded and hard hearted to speak thus but, after all, no harm can come from looking at the bright side, especially as with, one possible exception, the relief of the economic evil has been forced on the medical profession from without, while the responsibility of initiating the sole method of relief that has arisen within the profession, rests on men who were at their prime 25-30 years ago, who are mostly dead or so far advanced in age as no longer to be in active professional life, who offered many plausible excuses for their views and received the support of most thinking persons. This factor of intra-professional relief, indeed, required for its establishment, the approval of the public through their legislators and executives. It has been assailed time and again but, with transient exceptions, has always been approved by the public and has been progressively increased in the depth and breadth of its influence. It is scarcely necessary to explain that it consisted in the cruel edict that a man who desired to enter the medical profession should have more than the education of a laborer and more technical training than a nurse.

The only other important factor in rendering professional adjustment to the law of supply and demand possible has been war and preparation for war. No one regrets this more than the writer but it would be foolish to deny its bearing

on the economic and hence on ethical problems. There are no accurate statistics of the toll of life among European physicians, 400 British physicians are said to have been killed in the Somme campaign alone. It might seem that the present actual shortage of medical men in Europe was a transient condition but it must be remembered that, in war, about 7 medical officers are required per 1000 of healthy male adults who, in normal times, would require perhaps a fifth of the service of 1. In our country, the proposed increase of troops to 2 million, will require the more or less permanent withdrawal of at least 4 physicians per 1000, without actual hostilities, and at least 5000 physicians will be taken from the services of the civil population, beyond those already engaged by the military services. At present, the government wants about four times this estimate, available for orders.

Meantime, the additions to our numbers are only slightly more than are necessary to compensate for deaths on an average basis, less than would be required to maintain the ratio of physicians to population if the latter increases at its former rate, even without immigration. It must also be remembered that the medical profession is not normally distributed as to age but is top-heavy in this particular. The maximum actual, and still higher relative, proportion of physicians by age groups to the total, is of those who graduated 10-20 years ago. Within a comparatively few years, by the natural course of events, the medical profession will be rapidly depleted. There is no immediate danger of there being a scarcity of physicians for disease incidence is much lower than formerly. Indeed, even with the withdrawal for military purposes of approximately 5% of the existing active profession, the balance between supply and demand is probably at least 10 years in the future.

The Basis of Compensation for Medical Officers.

Whether in regard to Health Insurance or any similar scheme, it occurs to us that the most practical plan for the medical profession is to insist on a reasonable compensation, in accordance with formally established precedent. The three principal government services afford such a precedent, tested and approved by time. Broadly stated they are that a competent physician is worth from \$2000 a year at the start to \$4200 after 20 years of experience, with possibility of further promotion for longer or unusually valuable service. In addition, reasonable vacations, sick leave and pensions on retirement and quarters or allowance therefor at \$30-\$50 a month are provided. These salaries and perquisites are net,

equipments of all kinds for professional services being provided. When we say that this basis of compensation has been tested and approved by time, we mean that experience has shown that it is just about what is required to comply with the balance between supply and demand of competent service. There is no reason why a state, county, city or other conceivable branch of government should, on the one hand, expect to secure competent service at a less rate and, on the other hand, why a mistaken sense of professional dignity should overlook actual facts and attempt to secure a higher rating.

Health Insurance Economics.

Let us keep clearly before us that the main issue in Health Insurance and all similar plans affecting the profession is the economic one. It makes little difference to the average practitioner whether he gets his work and pay by competition after the analogy of the small business man or whether he serves as an official of some form of government, on a salary or fee basis. There is no immediate danger of interfering with the maintenance of more or less specialized practice on the competitive system by those who can get or are willing to take the chance of getting more than the average practitioner. There is little danger that the average physician will work harder or under greater compulsion to care for undesirable and non-remunerative cases, under government regulation than under his own sense of duty. The vital issue for the profession is its own compensation.

There is one fundamental basis on which any form of labor will receive its proper reward, barring a state of autocracy bordering on slavery, which need not be feared in this country. This is to be able to decline any offer of unjustly low pay or unjustly excessive hours and conditions of labor. This power, in turn, depends upon a genuine fulfillment of the law of supply and demand. Arbitrary and temporary substitutes may be employed but, in the long run, the law of supply and demand for anything, is inexorable. Just so long as there are more physicians than are needed, so long will the profession be endangered by threats of socialization.

Editorial Announcement.

The increase in cost of paper, printing and postage ought to induce some of our subscribers to settle. Every cent lost and every unnecessary minute on account of back subscriptions being just so much less for the Journal.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following. Pamphlets, quarterly and similar periodicals, reports, transactions, etc., will, as a rule, merely be mentioned.

Zone Therapy or Relieving Pain at Home. Wm. H. Fitzgerald and Edwin F. Bowers, M. D., published by I. W. Long, Columbus, O. 191 pages, \$1.50.

This is a most remarkable claim for the analgesic effects of pressure, variously applied, digitally, manually, by rubber bands, clothes pins and the like.

Transactions of the American Gastro-Enterological Assn 19th meeting, Washington, May 8 and 9, 1916. Printed for the Assn. under direction of Dr. Horace W. Soper, St. Louis.

How to Run an Automobile. Victor W. Page, M. E., published by Norman W. Henley Publishing Co., 132 Nassau St., N. Y. 178 Pages, illustrated, \$1.00.

This is divided in four parts: Automobile Parts and their Functions; General Starting and Driving Instructions; Typical 1917 Control Systems; Care of Automobiles. Between the colossal ignorance of salesmen and the lack of time and professional reticence of service men, it is very difficult for the owner of an automobile to get an intelligent idea of its anatomy, physiology and pathology. This book supplies the need as well as possible, short of practical demonstration in a school.

Cancer, Its Cause and Treatment. L. Duncan Bulkley, A. M., M. D., New York, published by Paul B. Hoeber, N. Y. 282 pages, \$1.50.

This is designated as Volume (2 acorns) indicating that it is really a much enlarged edition of a previous work on the same subject. The aim of the author is to consider the problem broadly, by getting at the real nature of cancer, instead of emphasizing any single method of attack or indulging in pessimism on a statistic basis. That he does not succeed in stating either the essential cause, method of prevention or of cure, in the ideal degree, is due to general lack of knowledge but we believe the solution of the problem is

greatly simplified by its statement in such terms. Dr. Bulkley regards cancer as not wholly due to traumatic causes, not due to a microorganism, not contagious, not hereditary, not especially due to occupation, sex, race, climate, or any single cause of any kind.

The Internal Secretions. E. Gley, M. D., Paris; translated by Maurice Fishberg, M. D., N. Y. Published by Paul B. Hoeber, N. Y., 240 pages, \$2.00.

The especial value of this book lies in its consideration of fundamental principles: the distinction between the two kinds of secretion, the distinctive characters and principal products of the internal secretions, while in considering the secretions in detail, the reciprocal relations are thoroughly discussed. The reader who looks for "pointers" either in diagnosis or therapeutics, will be disappointed and may even accuse the author of not being practical but, at this period, when the literature is crowded with itemized descriptions of hyperthyroidism, pituitary action, with reports of chemie and psysilogic experiments, nothing could be more valuable than a work of this nature which will help the student to correlate and to criticise along broad lines, the ordinary run of writing on internal secretions.

An Old Frontier of France. The Niagara Region and Adjacent Lakes under French Control, by Frank H. Severance of Buffalo. Published by Dodd, Mead & Co., N. Y.

This work constitutes the 20th volume of the Buffalo Historical Society's publications but is divided into two volumes, aggregating nearly 900 pages, illustrated and indexed. Both as to compilation and editorship and as to most of the historic research, it represents the work of the author, the Secretary of the Society. While its value depends to a large degree upon the presentation of original, contemporary reports and descriptions (often, of course, translated), it is not merely a collection of such documents but the author's life-long interest in the history of the Niagara Frontier has enabled him to assume a critical attitude and to arrange the material in an orderly manner, with a sharp discrimination between history and traditional misconceptions. The title calls attention to the fact that the subject is far removed from merely local interest. The events chronicled and political forces studied, have had far-reaching influences on the development of the western continent and even on the subsequent history of the whole world.

Sur Les Tetanos Post Seriques. Auguste Lumiere, reprint from the Annals of the Pasteur Institute, Jan. 1917. 19 pages, paper cover.

This study is based on tables showing 15 cases without trismus, 13 with slight or delayed trismus, 26 with trismus, with respectively 1, 3 and 17 deaths from tetanus and 3, 2 and 1 from intercurrent affections. 27 cases of tetanus without prophylactic injection, resulted in 19 deaths from tetanus and 1 from intercurrent affection. This subject is of great interest owing to the present war.

The Problem of the Nations. A Study of the Causes, Symptoms and Effects of Sexual Disease, and the Education of the Individual Therein. A. Corbett Smith, M. A., Barrister-at-Law, F. R. G. S., Editor of the Journal of State Medicine. Published by John Bale, Sons & Danielsson, Ltd., London. 107 pages, paper cover.

This monograph is based on statistics, of special value to American readers because of sources not usually included in American works on the subject. The point of view is sociologic rather than medical.

Practical Treatise on Fractures and Dislocations. Lewis A. Stimson, B. A., M. D., LL. D., New York, published by Lea & Febiger, N. Y. and Philadelphia. 8th edition, 946 pages, 475 illustrations and 39 monotint plates, \$6.00.

The Hudson St. Hospital, N. Y., 1894-1905, cared for 14,556 fractures and 1527 dislocations. The distribution of the fractures was: cranium 5.5%; face and neck 8.79% (the great majority being of the nasal bones and lower jaw, there being only 3 of the hyoid and vertebral fracture not being included here); 12.57% (about 12% of ribs alone); upper extremity 46.8% nearly 30% being included among Colles', metacarpal and phalangeal fractures; lower extremity 26.54%. Tables of seasonal incidence of fractures are given, which do not coincide very closely with a priori reasoning. It is scarcely necessary to say that the book is thorough and that X-ray diagnostics and the newer methods of treating fractures are properly considered. What impresses one is rather the fact that a subject is followed up to the end. Pathologic changes and unfortunate results are discussed so as to afford a timely warning. Statistics and notes of unusual cases are frequently introduced and the attempt is made throughout the work to give all possible useful in-

formation bearing on the treatment and outcome of fractures and dislocations.

Rest, Suggestion and Other Therapeutic Measures in Nervous and Mental Diseases. Francis X. Dercum, A. M., M. D., Ph. D., Philadelphia. P. Blakiston's Son & Co., Philadelphia. 2d edition, 395 pages, \$3.50.

The chemie and physical changes in functioning organs, the essential nature of fatigue and allied fundamental problems are considered. The distinction between physiologic and therapeutic rest is well made and the relation of rest to exercise and the degrees of rest necessary in treatment are discussed in a particularly enlightening way. The only criticism that we can make in this regard is that some practitioners, even when prescribing rest for themselves, need an even more explicit emphasizing of the fact that rest is not inertia but recuperation and that many patients need a good time more than idleness. In some respects, the author's ideas as to diet may be considered as too strongly biased by neurologic specialization—too much milk and raw eggs, "white meat," etc. Many valuable suggestions are contained in the sections devoted to hysteria and hypochondria. Leading up to the control of nervous conditions by suggestion, there is a very interesting historic resume of mystic and religious methods and those of early charlatanry.

A Compend of Human Physiology. Albert P. Brubaker, A. M., M. D., Philadelphia, P. Blakiston's Son & Co. 14th edition, 262 pages, 26 illustrations, \$1.25.

This is the original, brown covered, gilt lettered quiz compend which clinched the information that two generations of medical men have derived from lectures in medical colleges. It has been much though gradually changed since some of us first used it, to keep pace with advance in scientific discovery but it is the same old book in its essence. It isn't even "Brubaker's Compend, 14th edition by ————" like some old friends in recent editions and we hope that it will be many many editions more before that happens.

TOPICS OF PUBLIC INTEREST

A Learned Profession. At a recent meeting, physicians quite impartially spoke of diverticuli, diverticulae and diverticula, not to mention that some from a part of the country

where the English pronunciation of Latin differs somewhat from the usual standard, pronounced *ae* to rhyme with *lay*. All added the Greek ending *-itis* to the Latin stem, without a qualm. We have also heard of *spermatozoae* and *spermatozoata* and one man who sarcastically piled up plurals into *spermatazoatae*, failed to make an impression. Of course, it is deeds and not words that count, but after all, it is worth while asking whether our influence as a learned profession does not depend somewhat on the avoidance of gross errors. If the use of classic technical terms is not entirely an affectation, it ought to be according to correct standards.

Parturient Mortality. Recent census statistics give 14.9 deaths directly due to parturition, per 100,000 population. As births are approximately 35: 1000 population, this corresponds to about 4 maternal deaths per 100 confinements. It used to be said that the average parturient mortality was 1%.

Nurses Graduated from the German Deaconess Hospital of Buffalo, last month: Misses Minnie Fell, C. Irene Griffiths, Bertha L. Clark, Louise J. Clark, Grace Steel, Welhelmina H. Schweitzer, Hazel Esther Hallett, Anna Hewitt, Gertrude A. Grambow. Judging nationality from surnames, one is tempted to ask "What's in a name?"

Modification of Dog Law. The proposal to allow unlicensed dogs to be shot on sight, based on the danger of sheep killing, is changed to apply only to the country. City dogs remain subject to local ordinances and under control of local humane societies. City dogs visiting the country must wear their tags.

The Robinson Cat License Bill is to be allowed to die in committee. This is wise from the practical standpoint, however one may regard it in theory. Sometime back in the stone age of the eastern continent, observant human beings learned that the cat was not subject to law and license.

Marriage License Restriction. The Whitney-Seelye bill requires a verified statement from both parties, that they are free from venereal disease.

Centenarians. Thomas Edwards, living on a farm near Viola, Wis., was 101 years old April 25. A brother, a few years younger, lives with him. Their parents died at the age of 92. Thomas is a Civil War veteran. Marcus Colf, aged

102, a veteran of the Mexican, Civil and several Indian wars, who has been a resident of the Soldiers' Home at Dayton, O., after trying to enlist for the present war in various cities, was cared for in Buffalo, April 20 by the G. A. R. James Nicholas Vann, who lived in a cabin on a mountain near Middletown, was found dead, April 16. He was said to be 125 years old.

Quack Advertisements are, by the Marsh bill, made misdemeanors.

Psycho-Analysis Lectures at \$5.00 are advertised in a N. Y. paper, and without notice of a benefit for any philanthropy. A good subject for analysis would be the persons who respond.

Standard Oil Earnings. The New Jersey Co. earned 51½ millions net in 1915 on a capital of 100 millions and a total investment of not quite 150 millions. The Nebraska Co. earned over half a million on a capital of 1 million. The Continental Oil Co. earned 11½ million on a capital of 3 millions. The moral, when for both military and civil purposes, the need of oil products is almost as great as of food stuffs, is plain.

Grain Used for Liquors. It has been stated that 600,000,000 bushels of grain are used annually for this purpose in this country. Statistics that are said to be more accurate are as follows, in millions of bushels: Beer; corn, 17; rice 2; barley 48. Spirits; corn, 32; rye 3. Total 102 million bushels, equivalent on basis of weight, without regard to differences in nutrient content of different grains, to about 72 million bushels of wheat, and to about 1/7 of the total human consumption of wheat by the population of the U. S. in a year.

Antivaccination Bill. The Senate Committee has favorably reported the Murphy bill that vaccination shall not be compulsory for attendance at public schools, unless small pox exists in the locality. We favor this bill, simply because practical experience in the present and future, seems to be the only argument that appeals to the antis.

The Golden Rule? An Ellicottville woman was so anxious to attend a revival meeting that, in spite of the fact that her home was quarantined on account of scarlet fever, she demanded admittance which was refused, as the physician had warned the ushers. She argued that the case of scarlet fever

was a mild one, which reminds us of the plea that the baby was such a little one. We also recall the statement made by a minister that the highest religious duty was to save one's own soul.

Railroad Cars Required for Military Purposes. Lt. Col. Baker of the Q. M. Dept., estimates as follows: For a field army, 80,000 men, including 2 infantry divisions, 1 cavalry division and auxiliary troops 366 trains, aggregating 6229 cars. This is equivalent to 1% of the locomotives, 4.2% of the passenger cars and 0.2% of the freight cars of the whole country. He further specifies as follows: Infantry regiment, 1890 men, 177 animals, 22 vehicles, 85 cars. Cavalry regiment, 54 officers, 1284 men, 1436 animals, 26 vehicles, 150 cars. Artillery regiment, light, 45 officers, 1170 men, 1157 animals, 32 vehicles, 24 guns, 170 cars. Artillery regiment, horse, 45 officers, 1173 men, 1571 animals, 35 vehicles, 24 guns, 194 cars. Engineers, pioneer battalion, 16 officers, 502 men, 165 animals, 12 vehicles, 38 cars. Signal corps, field battalion, 9 officers, 171 men, 206 animals, 15 vehicles, 28 cars.

Fecundity. A negress, recently arrested in Niagara Falls for disorderly conduct claims to be the mother of 29 children.

State Civil Service Commission Vacancies. Examinations will be held June 23, application blanks not being sent out after June 11. Assistant Chemist, \$1200-\$1500; Assistant Medical Inspector of Schools, men only, \$3000; Supervising Nurse, Education Dept., \$1800. Inspector for State Board of Dental Examiners, \$1200. Assistant in Pathology, Institute for Study of Malignant Disease, Buffalo, \$1800; Bacteriologist-Pathologist, \$2500; Physician Institution for Feeble Minded Children, Syracuse, \$1800 and maintenance; Sloyd Instructor, Letchworth Village, \$600-\$720 and maintenance. Address State Civil Service Commission, Albany.

The Open Air Camp, conducted by the Buffalo Assn. for the Relief and Control of Tuberculosis, will be opened May 21. Applications for admission should be made to the Central Tuberculosis Dispensary, 175 E. Swan St., or to the Health Centers. Dispensary hours 10-12 daily except Sundays. Telephone, Seneca 1270-M. Hugo A. Brown, Executive Secretary.

Military Potentiality. It has been stated that Erie Co., N. Y., furnished 30,000 troops for the Civil War, the population

in 1860 being 141,971. The population in 1910 was 528,985 and is now undoubtedly at least 5 times what it was at the time of the Civil War. At the same rate, 150,000 troops could be raised from Erie Co. However, in any normal population, the total number of males of military age, even in the broadest sense, is scarcely a quarter of the total and it is usually assumed that only 10% of the population can be utilized for active service. In the Revolution and the Civil War, the total troops amounted to about 11% but, for the first, the service was usually very brief, often amounting only to militia duty during periods of actual danger for the locality. Without being able to deny the statistics of military enlistment for the Civil War, it seems incredible that so large a number could have been raised from the county itself.

Instruction of Venereal Patients. According to regulations in effect June 1, physicians must furnish every venereal patient with a pamphlet to be prepared by the State Board of Health, containing information to prevent infection of others. Venereal diseases are now recognized by the State authorities as communicable but are not subject to report or quarantine except when the patient is refractory, when power exists to control negligent patients.

Statistics of the Medical Profession. Polk's Directory for 1916, gives the following numbers of physicians. + signs indicate increases since 1914, = signs indicate that there is exactly the same number. States unmarked show moderate diminution in actual numbers.

Ala.	2490	Ia.	3595	Nev.	141	S. D.	625
Ariz.	264	Kas.	2730	N. H.	717+1	Tenn.	2909+
Ark.	2379=	Ky.	3393	N. J.	2789+	Tex.	5161
Cal.	5134+	La.	1955	N. M.	342	Utah	462+
Col.	1588	Me.	1150+	N. Y.	14707+	Vt.	647
Conn.	1588+	Md.	2177	N. C.	1948=	Va.	2309+
Del.	271+	Mass.	5622+	N. D.	583+	Wash.	1644+
D. C.	1077+	Mich.	4236+	O.	7343+	W. Va.	1691+
Fla.	999	Minn.	2353	Ok.	2234	Wis.	2487
Ga.	2837	Miss.	1683	Ore.	1063+	Wyo.	164
Idaho	431	Mo.	5946	Pa.	10678+		
Ill.	10274	Mont.	601+	R. I.	744+		
Ind.	4922	Neb.	1898+	S. C.	1118+		

The total for the continental U. S. is 134,126 as compared with 132,770 for 1914 and 129,002 for 1912. On the basis of a hundred million population, remembering that fully half of our increase for the last several decades has been due to immigration, which has been practically zero for 3 years, this

gives a ratio of 1 physician to 745, the largest for many years. However, this directory is as complete as possible and lists many physicians not in practice. For example, it gives 20,084 for N. Y., N. J. and Conn. while the N. Y. State Directory gives 18,479 for the same area and yet includes many non-practicing physicians but aims to include all that are licensed. On a proportionate basis, there are only 123,408 licensed physicians in the U. S., either practicing or entitled to practice, the ratio being 1: 810, which is still more favorable. (See our issue of Oct. 1914 for previous analyses).

Rockefeller Appropriations. \$475,000 was appropriated at the beginning of the war with Germany for medical research and humanitarian aid. \$400,000 additional has been appropriated for the same general purpose. \$200,000 has been appropriated for the military work of the Y. M. C. A., toward a fund of \$3,000,000. \$200,000 has been appropriated for the model Carrel hospital to be established shortly. \$60,000 has been appropriated for instructing military and other surgeons in new methods of diagnosis, preparation of serums, etc. \$15,000 has been appropriated to provide buildings for a naval psychiatric hospital on the grounds of the N. Y. Marine Hospital.

Eastman Dispensary Dedicated. The million dollar free dispensary, given by George Eastman to the city of Rochester, was dedicated May 9, during the meeting of the State Dental Society.

Canadian War Casualties. Up to May 8, the totals are as follows: Killed in action, 774 officers, 14,555 men, total 15,239. Died of wounds, 242 officers, 5,000 men, total 5,242. Presumed dead, 38 officers, 1,481 men, total 1,519. Died of sickness, 49 officers, 1,151 men, total 1,240. Missing 106 officers, 2,751 men, total 2,857. Wounded but living, condition not stated, 2,743 officers, 60,913 men, total 63,656. It will be noted that the ratio of officers to men in these items is, respectively, 1:19, 1:20, 1:42, 1:23, 1:26, 1:22. For obvious reasons, probably mainly average higher intelligence, the mortality from disease would naturally be less among officers but the difference from the other ratios is less than might be expected, certainly so little as to nullify the charge sometimes made that officers are better protected and better cared for. The slight change of ratio for the missing and the very considerable one for those presumed dead is obviously due to better opportunities for identifying officers. We have no statistics as to the proportion of officers to men but there can

be no doubt but that the relative mortality among the former, as well as their exposure to wounds and disease is disproportionately high. The comparison between deaths immediately or subsequently due to wounds and those from sickness is most remarkable, especially when we consider that, except as mitigated by sanitary science, the sanitary and hygienic conditions of the present war have been far worse than those of any other major war for more than 100 years. Less than 1 death occurred from sickness to 16 from wounds. In the Civil War, the deaths from disease outnumbered those from wounds, almost 2:1, and by more than this ratio if deaths from disease in Confederate prisons are included. They amounted to about 4:7 of all deaths while, in the present instance, they are only about 1/20 of the total. The present war is commonly thought of as being unusually bloody but a comparison with the Civil War scarcely bears out this idea. In the latter, almost exactly 4% of the total troops raised by the north were killed in action (including delayed deaths from wounds) in 4 years. In the present war, the deaths of the Canadian troops have been between 4 and 5% in $2\frac{3}{4}$ years. It is obviously impossible, in either case, to determine the risk to a given unit of troops for a definite unit of time with or without actual combat. In neither case has the total force been continuously in active service and it is doubtful whether even after the close of the war such a hazard can be calculated mathematically. Allowing for the fact that fighting has been almost continuous on the western front and that it was subject to considerable intermissions in the Civil War and that remissions of hostilities due to weather have been considerable greater, relatively, in the present war on account of higher latitude, it may be questioned whether the average combatant mortality differs greatly in contrasting the two wars.

Support for Day Nurseries. A bill has been passed requiring the common council of Buffalo to appropriate \$500 for each day nursery in the city.

Base Hospital Offer. The Buffalo Municipal Hospital, now under construction, has been tendered to the Government for a base hospital. It will be completed in about six months, will accommodate 500 patients or, by crowding, 750, and has 80 acres of land available for convalescent camps.

Credit Bureau. The St. Louis Medical Society has opened a collection bureau for the use of its members. Following are its purposes: (1) Confidential ratings on patients by

'phone; (2) Collect current accounts for 10 per cent; four months accounts to one year, 30 per cent; over one year and under two years, 35 per cent; over two years old 50 per cent; all accounts under \$5.00, 50 per cent; (3) monthly statement of amount collected with check for the amount, less the cost of collection.—Med. Herald.

Automobile Statistics. Up to May 1, the automobiles licensed in N. Y. State, not counting licenses to dealers, numbered over 293,000, beside 17,905 motor cycles. The figures by districts are as follows:

	Buffalo.	New York.	Albany.
Pleasure	81,480	100,584	64,463
Omnibus	1,045	3,960	2,478
Commercial	9,171	23,354	6,672
Dealers	750	867	797
Chauffeurs	13,037	68,572	13,571
Receipts	\$779,006.50	\$1,585,424.50	\$642,515.00

The total revenue for this year will be about four million, which should provide for 150-200 miles of brick or cement roads.

The Children's Hospital of Buffalo has abandoned its proposed campaign for \$50,000, on account of the pressing economic conditions. An attempt will be made to raise \$30,000 for immediate needs, by strictly voluntary subscriptions. This action cannot be too highly commended. Forced philanthropy at the beginning of the war can easily exhaust the surplus wealth in the hands of the well disposed, and apply it to activities, well enough in their way but not so vitally important as others whose need will be felt later. An equable, universal, official distribution of the burdens of war and of routine philanthropy is the best method, to obtain either men or money.

Centenarian. Mrs. Elizabeth Snively died at the Niagara Falls General Hospital, May 6, aged 100.

Hydrophobia. Claude Wilson of Sugartown Valley near Salamanca died May 1, following a dog bite seven years ago. (Is so long a period of incubation possible? Ed.)

Protection of Physicians Absent on Military Duty. The State Society has undertaken to enforce the recommendation of the Surgeon General's suggestion to hold together the practice of physicians in military service. Blank forms have been prepared in triplicate for notification of patients as to

substitute, of the substitute himself, while the third blank will be held by the Secretary of the State Society. Substitute physicians are to turn over one-third of all fees received and to agree not to attend the patient within a year of the return of the original family physician. This impresses us as a practical and reasonable arrangement but there is a serious obstacle to the carrying out of any such plan—the modern tendency to break away from the old ideal of a definite family physician. However the method automatically provides, so far as the substitute is concerned, for any conflict of this nature and, if the patient sees fit to ignore the reference to a substitute, his right of selection is unimpaired. Specialists, of course, cannot be so well protected as men with family practices and must depend largely on the honor and good will of the profession on their return to private practice.

Poliomyelitis Clinic. The State Dept. of Health held a clinic in Buffalo, May 9, under the direction of Dr. Lovett of Boston, for patients and physicians of Erie, Niagara, Orleans, Genesee and Chautauqua Cos. 131 patients were examined, the work being continued for three days.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

Medical Society of the County of Erie. Regular meeting in the Buffalo Medical College, April 16th. In the absence of the President, Vice-president Dr. George F. Cott presided. The minutes of the regular meeting held in February and also the minutes of the Council were read and adopted.

The following were reinstated: Dr. George Schaefer, 967 Jefferson St.; Dr. Bruce L. D. Cook, 819 Jefferson St.; Dr. George B. Stocker, 855 Genesee St.

The following new members were elected: Dr. Charles B. Handel, 19 East Genesee St.; Dr. John A. P. Millet, 520 Franklin St.; Dr. Byron D. Bowen, 84 Elmwood Ave.; Dr. M. Carlton Vaughan, 78 Brayton St.; Dr. Clifford Rowell, 224 Massachusetts Ave.; Dr. Adam R. Johnson, 478 Delaware Ave.; Dr. Jane R. Breese, 441 Franklin St.; Dr. William P. Clothier, 1126 Main St.; Dr. Alexander Mulki, 41 Cedar St.; Dr. John A. Metzen, 1335 West Ave.

The Society instructed its delegates to the State Society to

oppose any move which would change the ratio of representation in the State Society.

It also instructed its delegates to oppose the candidacy of any person who had formerly been active as a proponent of the Mills Bill.

The speakers of the evening were to have been Dr. Thomas W. Salmon Medical Director of the National Committee for Mental Hygiene and Dr. Ethan A. Nevin, Superintendent of the State Custodial Asylum for Feeble-minded Women, New-ark, N. Y. At the last moment, however, Dr. Salmon, who is on the Medical Reserve List of the War Department received orders, which made it impossible for him to come to Buffalo, and he therefore requested Dr. Frankwood E. Williams, Association Medical Director of the National Committee for Mental Hygiene, Editor of the new magazine on Mental Hygiene, and former Secretary of the Massachusetts Mental Hygiene Society to attend in his place.

Dr. Nevin accompanied his remarks by stereopticon slides and motion picture reels.

A hearty vote of thanks was tendered to each of the speakers after which adjournment was made to the College Library where a collation was served.

FRANKLIN GRAM, Secretary.

The American Gastro-Enterologic Assn. held its 20th annual meeting in Atlantic City, Apr. 30 and May 1, under the presidency of Dr. Wm. Garry Morgan of Washington.

The Alienists and Neurologists will meet under the auspices of the Chicago Medical Society, in Chicago, July 10-12. The program will include discussions of state hospital architecture, custody, special hospitals for research and prevention, colonies, etc., as well as papers on diseases. There are no fees of any kind. Those interested should address the Secretary, Dr. Bayard Holmes, 30 N. Michigan Ave., Chicago.

The Women's Medical Society of N. Y. State met in Utica, Apr. 23, before the Medical Society of the State of N. Y., under the presidency of Dr. Eveline P. Ballintine, of Rochester. It concluded with a banquet, Dr. Maud J. Frye of Buffalo acting as toastmistress.

The Elmira Academy of Medicine held its regular meeting May 2. Dr. H. W. Fudge reported a case of Acute Double Suppurative Parotitis; and Dr. Charles Haase made a report on the proceedings of the State Society. Pres. Dr. R. B. Howland, Sec. Dr. O. J. Bowman.

The Alumni Assn. of the Medical Dept., University of Buffalo, holds its 42d annual meeting May 31-June 1. Last year, owing largely to military duties, the committee was unable to prepare the transactions for publication as customary but we hope that, in spite of the increased urgency of political conditions, the publication will be resumed this summer.

The Rochester Academy of Medicine, Section I, met May 9. Dr. James P. Brady read a paper on Clinical Signs and Symptoms of Hepatic Disease; Dr. George W. O'Grady on Functional Tests of Hepatic Function and Disease.

The Buffalo Academy of Medicine has held the following meetings since last reported: Apr. 25, Section of Pathology, Army and Naval Service Opportunities and Duties, Dr. Harry Lee Brown, Surgeon, U. S. N.

May 2, Section of Surgery, Treatment of Compound Fractures, Dr. Frank W. McGuire, discussion opened by Dr. Harry Trick.

May 9, Section of Medicine, Phlyctenular Eye Affections and Tuberculin, Dr. H. H. Glosser.

May 16, Section of Obstetrics, Adeno-cystoma of the Ovaries, with microscope demonstration, Dr. Chas. A. Bentz. (Note: The newly elected officers of the Academy will be announced together, in a later issue).

The Pathological Society of Rochester, held a meeting May 16. Dr. E. W. Jackson gave a paper on "How Can We Best Tell the Condition of the Heart Muscle?" Pres. Dr. H. J. Vary; Sec. Dr. G. H. Gage.

The Gross Medical Club held its meeting at the Hotel Lenox, May 18, being entertained by Dr. Grover W. Wende; in the absence of President King, Dr. B. E. Smith, Vice-President, occupied the chair.

On motion of Dr. J. Henry Dowd it was unanimously voted to donate \$50 to the Red Cross to be used for a bed in the base hospital.

Dr. Benj. Gipple of Alden read a paper, "Biological Therapeutics," discussed most vigorously by all, the unanimous opinion being that, "Some few had virtue, but many were humbugs foisted on a credulous body of men who have licenses to treat sick people."

Several very important cases were reported by Drs. Cott, King, Bennett, Wende and others. The banquet following was a credit in every way to this well known hotel.

OUR CONTEMPORARIES

The Society of Bacteriologists has undertaken to publish a new journal, *Abstracts of Bacteriology*, under the editorship of Dr. A. Parker Hitchens and Dr. George H. Smith of Glenolden, Pa.

“In our man-made world, the sexual exploitation of women as breeding machines is one of the saddest of our records.” *Medical Times*. In what different persons regard, respectively as a God-made or a naturally evolved world, women might be considered as breeding machines. The protest against this fact comes several thousand or million years too late. In so far as the world may now be considered man-made, the saddest thing is the sexual exploitation of women—or of men by women—with the attempt to eliminate the latter as breeding machines.

PERSONAL

Dr. James Stoddart of Buffalo announces the removal of his office and residence to 160 W. Utica on May 1st.

At the Touraine Hotel April 23, the class of 1890 Niagara University gave a dinner in honor of Dr. J. Henry Dowd, a member of that class; Dr. John J. Finerty acted as toastmaster. Impromptu speeches were made by each of his classmates also by Mr. Edward G. Kirk, Supt. of the Pullman Car Co., who relieved Dr. Dowd in the office of Supt. Burrows of the N. Y. C. Ry. Co., he responded to the toast, J. Henry Dowd as a railroad official. A very neat little souvenir, containing a cartoon taken from the Buffalo Evening News, depicting him as a golf expert, a maker of mission furniture, also several verses describing him from graduation till the present day, was given the diners.

Dr. George W. Cottis of Jamestown sailed April 20 to work with the Harvard Medical Unit in France.

Dr. Stanley J. Brown of Mt. Morris was thrown out of his automobile and injured, May 7.

Dr. Burt J. Maycock and Dr. A. L. Benedict of Buffalo, were at the Chalfonte, Atlantic City in the latter part of April.

Dr. Thomas Bagley of Buffalo returned last month from a trip to N. Y., Washington and Miami.

Dr. Charles Haase of Elmira has equipped his office for X-ray work.

Dr. Arnold H. May of Buffalo has moved his residence to 625 W. Delavan Ave., continuing his offices at 37 Allen St.

Dr. John R. Honiss of 595 University Ave., Rochester, announces the limitation of his practice to the ear, nose and throat.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Dr. Frank H. Flood, N. Y. Univ. 1873, former Mayor of Elmira, died May 9, aged 65.

Dr. Henry Oliver Ely, P. & S. (now Columbia) 1867, died at his home in Binghamton, April 18, aged 71.

Dr. John M. Farrington, N. Y. Med. College, 1857, died at his home in Binghamton, April 18, aged 84.

Dr. John Deans Scouller, Buffalo 1870, Supt. of the State Reformatory at Pontiac, Ill., died Meh. 31, after an operation, aged 81.

Dr. Gustavus Pierce English, L. I. C. H. 1882, died at his home in Utica Feb. 15, aged 59.

Dr. Charles E. Simmons, Gottingen 1862, M. D. P. & S. 1864, died at his home in N. Y., May 3, aged 76. He was formerly Commissioner of Charities and Corrections.

Dr. Harriet Noble Watson, N. Y. City Med. College for Women 1878, died at her home in Albion, May 4, aged 81. She had been a practitioner of Albion for 39 years. When the Western House of Refuge was founded in 1893, she was appointed attending physician and served 14 years.

Of 66 deaths of physicians listed in the Jour. of the A. M. A., April 28, 3 were suicides, 5 due to automobile accidents, 1 due to drowning at night while making a professional call, and one, a woman, was burned to death.

Dr. William J. Squire, of Buffalo, 1893, died April 28, aged 57.

Dr. Charles Benjamin Knowlton, Buffalo 1872, died at his home in Buffalo, May 11, aged 81. He was also a graduate in law and had not actively engaged in the practice of medicine. To many Buffalonians, he will be best remembered for his long and valuable service in the public schools, as a teacher of writing.

Dr. Silas Hubbard, Medical College of Castleton, Vt. (extinct since 1861) 1841, of E. Aurora, died at the home of his daughter in Buffalo, May 18, aged 96. He was born in Mayville, Chautauqua Co., May 9, 1821, and came to Buffalo with his parents, when 9 years old. His education was received at the Lima Seminary, E. Aurora Academy and Allegheny College. He was a practitioner in Buffalo from 1842 to 1855, when he went to McLean Co., Ill., practicing first in Bloomington and Hudson. In 1900, he returned to Buffalo but lived for most of the time in E. Aurora. He contributed several articles to the first series of the Buffalo Medical Journal and has shown his continued interest in medical matters by quite recent though brief communications. So far as known, he was, at the time of his death, the oldest physician in the state.

ABSTRACTS

Owing to the departure from Buffalo of Major W. W. Quinton, M. D., we would be glad to have some one volunteer to abstract from several journals in the Spanish language.

Tyrotoxicon. R. F. Ives, Brooklyn, L. I. Med. Jour., May, reports a case from ice cream, with marked cardiac degeneration and probably myocardial degeneration, indicated by faintness on slight exertion, for 3 weeks. Ultimate recovery.

Quintuplets. W. Martin, Brit. Med. Jour., Meh. 17, reports a case, 4 boys and 1 girl, living 1½-28 hours. The mother was 39 years old, 8-para, all previous children living, herself one of eight children, no family history of multiple births except that a sister had had twins once.

BUFFALO MEDICAL JOURNAL

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ORIGINAL ARTICLES

The right is reserved to decline papers not dealing with practical medical and surgical subjects, and such as might offend or fail to interest readers. Contributors are solely responsible for opinions, methods of expression and revision of proof.

Autotherapy in Abdominal Infections.

By CHARLES H. DUNCAN, M. D., New York City.

In autotherapy the physician treats the patient with the unmodified toxic substances developed within the latter's body, by the action of the infecting agent on his body tissues, against which the tissues react in a curative manner.

The autotherapeutic remedy is usually obtained by filtering the pathogenic exudate through a Duncan Autotherapeutic Apparatus. The filtrate contains the bacteria-free unmodified toxin-complex, or the toxic result of germ activity, from **all of the microorganisms in the locus of infection**, in the same proportion and virulence in which they appear in the patients body. The immunizing filtrate is injected hypodermically.

The Doctrine of Aggressins, developed by Bail, need only to be referred to, and not outlined here, to cause those who are familiar with the subject of immunity to understand the action of these injected toxins. There is no danger in their use, or no more danger than attends the use of the vaccines and sera now in daily use among us. Autotherapy is indicated wherever a vaccine is indicated. The patient suffering with an infection, has the remedy designed by nature to cure him within his body, and it often can be obtained; for it is the unmodified toxic substances within the patients body, that the tissues must resist in establishing a spontaneous cure.

During the winter of 1909 and 1910 the writer began treating patients suffering with infections with the unmodified toxic substances developed within the locus of infection by the action of the infecting agent on his body tissues. In the regular order of development of this new system of therapy, he treated several cases of acute appendicitis, cholecystitis,

etc., successfully by filtering the sputum and injecting the filtrate hypodermically, and published his results.

These cures were severely attacked from many quarters, for as yet, there was no precedent for such deep seated infections being cured so quickly, and that by such simple means. Since then, Dr. Edward C. Rosenow of the Mayo's clinic, has shown by actual tests on animals many reasons why it is possible for these cures to be made. Rosenow's tests show that bacteria have an elective affinity or trophism for the tissues upon which they grew. Thus, cultures of streptococci taken from a human appendix have a strong tendency to develop appendicitis in animals when injected intravenously. When the strains are cultured for a week or longer but few of the animals develop appendicitis. Cultures from **tonsils** of individuals having appendicitis will tend to develop appendicitis cholecystitis, etc., respectively in animals when injected intravenously, and microscopically he identified the same causative microorganism in both the appendix and tonsils, furthermore he demonstrated the same microorganism present in the tonsils after the operation for appendicitis was performed. Thus, it is shown that operation does not remove the cause of the disease, but merely some of the effects. It is the condition behind and deeper than the operation that autotherapy often removes. This statement is apparently borne out by further tests by Rosenow. He shows that even the **bacteria-free filtrate** from cultures of the streptococcus taken from an inflamed appendix markedly affect by elective affinity the appendix of animals into which they are injected. It is altogether probable that filtrates from the exudates without cultivation would be more positive in their action. Rosenow states—"Streptococcus loose in characteristic elective affinity by cultivation on artificial media, after animal passage, etc.," Then it logically follows that they should not be so grown, if the best therapeutic results are to be obtained; and that the ideal curative agent is one that is cultivated upon no media, except the patients own body tissues, the elective affinity of these toxins remains unaltered by filtration. The autotherapeutic remedy is the only strictly autogenous agent we have at our command in fighting disease. In view of the above tests we must accept the autotherapeutic cures of acute appendicitis, peritonitis, etc., as reported, for they have now been experimentally demonstrated. These tests lay at rest forever the criticism of autotherapy that these cures could not be made for the reason there has been no precedent for them. The pain of acute appendicitis, cholecystitis, peritonitis, etc., will usually subside within a few hours after the first injection, as if by the action of mor-

phine, and what is more it will not return if a few more injections are given according to the needs of the patient.

In an article under the title of "Autoimmunization in Respiratory Infections" that appeared in the **Medical Record** September 5th, 1914, after reporting two cases of acute appendicitis and two cases of cholecystitis cured quickly by injecting the filtrate of sputum subcutaneously, the writer stated: "If the physician treats catarrhal conditions of the respiratory tract autotherapeutically, he will often be surprised to discover he has cured many conditions supposed to be remote from this locality." This holds true for a wide range of infections. By following the technic of my former articles many physicians are injecting the filtrate of mucus from the respiratory tract and curing infections of, the mastoid cells, the antrum of Hymore, the frontal sinuses, bronchitides acute and chronic, tonsilitides, (it is very important that this latter disease be treated autotherapeutically, for rheumatism and heart complications so often follow the usual vegetable and mineral drug medication for this disease), laryngitides, pharyngitides, etc., quickly. Diseases of the eye that have their origin, in infections of the nares, should be treated autotherapeutically; this last statement includes glaucoma before which the physician is so often helpless.

In autotherapy we are not immunizing the patient to the so-called autogenous vaccine, for this is of altered or lowered therapeutic value compared to the unaltered toxins or the autotherapeutic remedy; nor are we immunizing our patient to microorganisms taken from some other patient or source, grown on innumerable cultures. In autotherapy we immunize the patient to his own unaltered toxins, that is toxins from all of the microorganisms, both causative and complicating, present in the locus of infection. This is what nature does when a spontaneous cure occurs, autoimmunizes the patient. With this understanding we can readily see that if a vaccine cures, such cure is due, not to the laboratory cultures, preserving chemicals, heat, etc., but in spite of them. The question then is asked: Should the infecting microorganisms ever be cultured for therapeutic purposes? Microorganisms should never be grown on culture media as we now grow them, if it is done with the view of adding to their therapeutic effect.

Case 1. Patient, female, age 22 years, was taken to Bellevue Hospital where she was operated for acute appendicitis. She was discharged ten days later when she returned to work. Within five days she came down with severe abdominal pains. The writer was called and found her suffering with acute

peritonitis. She was given an injection of the filtrate of sputum at 5 o'clock p. m. She slept the greater part of the night, the pain having left in six hours. She had three other similar injections; there has been no return now for eleven months.

It is not intended in this brief article to do more than stimulate interest in this new method of therapy; but still the technic is so very elementary simple and the results so positive that it will repay any one to be prepared to treat these deep infections, for by this means he will be able to abort many operations that formerly demanded operation. The literature should be examined carefully, but if the following technic is closely followed it is possible to cure many cases. Whether an operation is performed, autotherapy should be employed as an additional factor of safety, for surgical operation simply removes some of the effects of the infection, while autotherapy tends and often does remove the cause.

Mix one drachm of sputum with an ounce of distilled water. Allow it to stand for twenty-four hours, (in an emergency twelve hours will often suffice), with occasional agitation. After which time filter through a Duncan Autotherapeutic Apparatus and inject from one to one and a half cubic centimeters subcutaneously. Disperse the injected fluid through the tissues by vigorous rubbing through a sterile bandage. The pains will usually leave within twelve hours. Do not repeat the injection for five days unless the pain returns. Then inject again. The cutaneous reaction is manifested by a pink discoloration of the skin adjacent to the point of the needle. Within wide range, it may be stated the greater the cutaneous reaction the quicker will be the response and cure. The constitutional reaction is manifest at times by a slight chill. This is due to the size of the dose being larger than the local tissues can take care of. If a severe chill follows do not repeat the injection till ten days has elapsed since the last, unless the pain returns. The return of pain is the indication for another dose. The above technic is for acute conditions. In chronic conditions, very much smaller doses should be employed, and the interval between doses may have to be increased. The range of dosage is very wide, so that no fear need be entertained if the technic outlined above is closely followed.

It may be stated in closing that the above technic is applicable to all infections that have their origin in infections in the respiratory tract. Both cutaneous and constitutional reactions will usually subside within twenty-four hours.

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Foreign Bodies in Hydrocele. Stuart Graves reports in the *Miss. Valley Med. Jour.*, June, a routine autopsy on a negro aged 75. 3 faceted bodies, about 1 c.m. in diameter were found in an old right hydrocele, one having been palpated before section. Organized fibrin was found on section so that the term foreign body is not strictly applicable, nor is it stated that calcification was observed, so that the term concretum is scarcely applicable. Reference is made to a peritoneal formation, of the size of a fist, of similar nature, from McGill University. Such bodies seem to be analogous to those sometimes found in joints, especially the knee and known by the term Gelenkmaus.

Reduction of Typhoid in Massachusetts. The Public Health Bulletin reports a rate of 4.5 per 100,000 population for 1916, the lowest rate for any state yet recorded. It is only a few years since a rate of 15-20 was considered low for a state or city and, even in Europe, a rate of 10 has been considered normal. The progress is ascribed largely to the increased use of antityphoid injection, sanitary measures having already achieved their maximum practically attainable effect.

Are We Scientific?

By GEORGE L. SERVOSS, M. D., Reno, Nevada,

Editor "Western Medical Times."

Reduced to the simplest possible term, science is the knowledge of a thing—a complete knowledge, or one as complete as it is possible to attain.

In our study and application of things therapeutic are we invariably scientific? Do we obtain anything like a complete knowledge of all the things pertaining to drugs and chemical and their uses? Is it not very frequently the case that, for one reason or another, we turn our backs on and will have nothing of this, that or the other drug, and for the simple reason that some supposed authority or board of censors has told us that such agent is either inactive or too active? Does it not very frequently occur that we never go farther than to read one side of the argument and thus do not avail ourselves of some drug or other remedial agent which may have been proved of value by someone else?

Not long ago a new edition of one of the leading text-books on materia medica and therapeutics came into our hands and in reviewing it we noticed that the author said, in rather an imperative manner, that the two alkaloids, aconitin and veratrine **must not** be administered internally—that they were too dangerous and too potent for any such application. Had we been unacquainted with these two agents we should undoubtedly have taken the word of the author as final law on the subject, but having employed both, **and without the least sign of deleterious effect**, over a term of more than a decade, we concluded that the writer had based his opinion upon the teachings of someone who, like himself, had never employed these alkaloids. He did not say that either alkaloid was inactive or that it would not give the effect of the parent drug, but based his instructions for non-use solely upon the question of too high potency. Elsewhere in his book he advised the use of atropine, an alkaloid every bit as potent as either of the ones which were consigned to the discard. The trouble was that this man, like many others, was not scientific—not wholly so. He had never employed either aconitin or veratrin and so, from a practical working standpoint, knew little or nothing of either. He did give the dosage of both, and as usual, with men of his sort, it was altogether too high. He did not, as do those who have employed these alkaloids successfully, and without untoward results, know that small and

frequently repeated doses, not only give good results, but that such results are obtained without any bad conditions following.

Not long ago the drug *crataegus* was suggested to us for use in certain heart conditions. Desiring to know more about it than was contained in the information given us, we went to our text-books on *materia medica* originating from men of the regular school. After going through three of those written by teachers and accepted authorities on the subject of drugs and their applications we were no better off than we had been before picking up the first book. There was but one allusion made to the drug and that was simply a mere passing mention in the portion of the book devoted to therapeutics. Absolutely nothing was said in that part of the book given over to *materia medica*. Consequently, our knowledge was not increased by a single thought, even though we gave some time to our hunt for information. After exhausting all we could place our hands on, coming from writers of the regular school, we turned to a work by an eclectic and there we found several pages devoted to the drug in question and were able to obtain a very good knowledge of its actions and uses. Upon clinical application, we found that *crataegus* gave such results as were claimed for it by the eclectic writer. In view of this fact, are we of the regular school scientific therapeutists when we refuse the use of any such drug, simply because it originally came to us from a layman or from a school not our own?

We do not know why so little attention is paid to *crataegus* by the writers of the school. We have no information at hand relative to the composition of the drug and do not, consequently, know whether it carries a demonstrable active principle or not. We have an idea that it does not and that is the possible reason why it is not accepted by some of the regulars. But that it does the work expected of it, has been demonstrated by men both in and out of the regular school.

Cactus is another drug which is passed by by many of the regular writers, and for the reason that no active principle is demonstrable, and in spite of the fact that the clinician has found, in a practical way, that, in nervous heart manifestations, it does bring results, and good ones. Only recently have we had three cases of irregular heart action, without organic lesion, in which *cactus* has brought a return of the normal. In all of these instances no other agent was employed, as we desired to demonstrate, for our own satisfaction, whether or not the drug was efficient. Again have we had to go to the so-called irregular authorities for our in-

formation on the subject. The regular writers have either just given a mere mention of cactus or omitted it entirely from their books. Is this scientific? Does such omission lead up to a proper knowledge of the subject? Does it show us that the writers have given us information, based upon their own experience, or that they have relied upon others, equally without practical knowledge?

We have been told, time and again, that it is practically futile to exhibit the intestinal antiseptics and for the reason that the gut is so full of kinks, twists, turns and pockets, that no agent of this sort will render it anything like aseptic. For sake of argument, we will admit that, to some extent, this may all be very true, but those of us who have employed the antiseptics, know that we have gained results which no other agents have given us. We have seen a diarrhea cease as if by magic and with absolutely no recurrence. This was not the case when we depended upon opiates, which simply checked the flow, but did not have any effect upon the cause, than to possibly increase it. In intestinal fermentation, with stinking stools, we have seen the odor disappear completely, and very frequently within a very short time after a few full doses of the sulphocarbolates. We have seen fever, due to such fermentation, abate without the use of one single other remedy. It may be true that the entire bowel is not rendered aseptic, or nearly so by any such medication, but is it scientific to spread the information that the intestinal antiseptics are wholly useless, simply because of the supposed impossibility to render the whole of the gut clean? Is it not more scientific to base our ideas upon the knowledge of what we have gained in a clinical way, rather than upon theory?

We of the regular school have been too hide-bound in our ideas relative to drugs, their actions, uses and applications. We have formed too much of a habit of going about with our noses so elevated as to be unable to see that which has been at our feet. We have formed a mental corporosity which has interfered with our seeing our toes, and in consequence we have tripped over the unnoticed in a good many instances. In our treatment of things therapeutic we have relied upon the laboratory and not upon real common sense to too great an extent. We have been destructive, rather than constructive, both in our ideas and actions. We have been too prone to find fault without any real scientific foundation upon which to base such fault. We have been too prone to listen to others rather than to make investigations on our own initiative. In fact, in some quarters, the individual initiative would be wiped out completely and we would, if they would

have their way, carry on our practice upon the basis of their thoughts, rather than upon our own. We would, in other words, be the "office boys" of the self-constituted authorities. We would do nothing unless they said so, and then only as they said.

It has been the lack of the scientific (complete) knowledge which has, within recent years, played havoc with the profession as a whole. We have been told we were know nothings until we have about concluded that such is the truth. That is, some of us have. We have, following the foot-steps of the self-constituted censors and authorities, gone on and on in our career of therapeutic destruction, until now chaos reigns. That this is true is shown by the fact that one of our leading medical schools has determined to drop the department of materia medica and therapeutics from its curriculum, saying that nothing is of avail, or words to that effect, other than surgery. It tells us, in almost as many words, that drugs are of no avail and that our patient will either recover or die, no matter what effort may be made by us through the use of drugs. In other words, this school would destroy the very foundation of the practice of internal medicine, the relief of the sick. It is not a diagnosis of his condition that interests the sick individual, as a rule, but that something which will bring him back to normal, and in the quickest possible manner. He is not particularly interested in the etiologic factors of his disease, but in that which will wipe out the cause and make him a well man. He is not going to be satisfied with being told what ails him and then allowed to lie quietly and allow nature to take her course, good or bad. Not by any manner of means. He is going to insist upon attention from the **scientific** physician, the man who can not only make a diagnosis through recognition of the cause and pathology, but one who knows how to apply those remedies which will meet the indications in the case. He will have no use, **absolutely no use**, for the destructive physician, the man who would let him lie and die because of lack of proper therapeutic knowledge.

It is little wonder that the irregular practitioners are boring into our business. They "do things." They discover what ails their patient and then go ahead and give him all possible relief, and through such therapeutic channels as they have seen are really navigable. If one watches and compares them with men of our own school, it is readily seen that, case for case, their results in internal medicine equal, if not excel, our own. And the patient sees that they are making an endeavor to bring him relief and he is satisfied, even though they may fail, in some instances.

We will admit that we may be considered heretical in offering any such ideas as these, but the time has come when we must begin a reconstruction of things therapeutic. We have been destructive for too many years and with the result that we are no longer real healers of the sick. Through our destructive and unscientific actions we have given every irregular just the opening desired, that of demonstrating that we are inherently weak, that we are only half taught, and very frequently that half poorly. We have paved the way for the success of the Christian Scientist, osteopath, chiropractor and all other sects and cults, and all for the reason that we have been half-baked in the **real** art of the doctor, the proper treatment of the sick. We **are not** scientific, when it comes to things therapeutic, because we do not possess a complete knowledge of those things which we should employ.

Ether-Chloroform Mixtures. W. J. McCardie, Brit. Med. Jour., April 21, experimented with various mixture to avoid the irritating effects of ether, soldiers being especially to be considered on account of exposure resulting in pharyngitis, and excessive smoking; and, on the other hand, the depressing effects of chloroform. The mixtures used varied from 4 parts of ether to 1 of chloroform up to 32 of ether to 1 of chloroform (Note the influence of the apothecary's system) and he found the happy mean to be 16 of ether to 1 of chloroform. He gives $\frac{1}{6}$ gr. (1 c.g.) of morphine and $\frac{1}{100}$ (about $\frac{2}{3}$ m.g.) of atropine before the general anaesthetic.

Rarity of Conjugal Phthisis. Maurice Fischberg, Am. Jour. Med. Sci., page 395 Vol. 153, in 170 families in which husband or wife was known to be tuberculous, found only 5 cases in which both were tuberculous—2.9%. As approximately 10% of all persons develop tuberculosis of serious degree from which both were tuberculous—2.9%. (As approximately 10% of the mates of those already infected would become so without any special influence from the domestic fomes. Hence the predisposition seems to be about three times as great as for the population at large.)

Double Radial Artery. This rare anomaly is described by Edward Faucett of Bristol, Eng., Brit. Med. Jour., Meh. 17. It was associated, as it frequently is, with three heads of the biceps, the brachial branching high.

Method of Shrinking Human Heads by Baqueta Indians.

REV. HORACIO GIRALOTO, Palmeiro, Brazil.

Translation by Major W. W. Quinton, M. D.

During a voyage on the River Maranon I had occasion to converse with a person who had been present at the operation by means of which the Baqueta Indians reduce the size of the heads they cut from their prisoners of war, drying them out instantly and rendering them incorruptible, (i. e. not subject to decay).

This operation generally is intrusted to the women and is as follows:

On a well-cleaned floor they commence to construct a small oven of clay in which can be contained comfortably the head they wish to prepare.

To construct this oven they make in the first place a framework with the twigs of trees and over this place a covering of clay in such a manner that the branches are covered, leaving only a small opening at the bottom and six holes in the vault of the oven.

On the outside and all around the oven they light six fires, over each one of which they place a jar of water. This jar is sealed hermetically except that from the lid of each one of these jars issues a tube of clay that rises to the holes in the lid and penetrates the oven, conducting the steam from the jar to the oven.

When everything is ready and the fire is lighted, they place in the oven the head that they wish to prepare and when the water is boiling and the steam commences to pass in the tubes they shut up with clay the opening of the oven.

The fire is fed for 8 hours more or less and the Indians renew the water in the jars which has been lost by evaporation.

After 8 hours they open the oven, extract the head which they find much reduced in size and place it to dry in the sun and the operation is finished.

According to repeated assurances made to me they practice no manipulation nor pressure over the head nor remove any of the brain or the skull.

The prolonged action of the steam seems to be the only agent in this curious operation.

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The Investment (?) Value of Life Insurance.

As agents commonly give the assurance that various forms of policy are good investments, aside from the actual insurance of dependents, we submit the following experience with a 20-year endowment policy in a standard "old line" company, reduced to the basis of \$1,000 death benefit:

Total premiums paid	\$600.01
Total surrender value at end of term	626.53
Financial profit	26.52
Value of premiums at 4% simple interest	849.12
Value of premiums at 4% compounded semi-annually	929.58
Loss as compared with bank interest as above	303.05

The actuary's statistics showed that an average of a thousand policy holders of equal age, would have to raise from subscribers annually, to pay death claims of \$1,000 each, from \$4.42 to 10.11. These would amount in 20 years to \$206.38. The payment to the company for expenses and profits amounted, in addition, to \$96.67. It is unnecessary to state that investments at 5 or 6%, reinvesting interest and payments of principal so as to secure some degree of compounding of interest, pay a great deal more than investment insurance policies. The latter should, therefore, be taken solely as insurance and not with any idea of investment.

Another example is that of a company who offered a term insurance under the name of a 5% gold bond. When the offer was made to buy the bond outright, as an investment,

instead of paying annual or semi-annual premiums, it was found that the sum demanded would bear only a fraction over 4% interest.

BOOK REVIEWS

Books mentioned may be inspected at and ordered through this office. So far as possible, books received in any month will be reviewed in the issue of the second month following. Pamphlets, quarterly and similar periodicals, reports, transactions, etc., will, as a rule, merely be mentioned.

Annual Report, Dept. of Health, Buffalo, 1916.

This reflects great credit on the Commissioner, Dr. Francis Fronczak and his staff. The work of the Dept. is surprisingly comprehensive, even to physicians who should study the report carefully. To illustrate, we select various items at random. Dental services: 19,354, including 8,159 fillings and 2,561 extractions; visits to midwives' confinements 4,934; health center services, 69,136, including 37,785 at the centers, the remainder at hospitals and miscellaneous; expense of dept.: \$222,864, including \$181,700 salaries. 2,371 packages of free antityphoid vaccine were distributed to physicians, of which reports have been received from only 115. Of 210 bacteriologic examinations of sore eyes in babies, 87 were negative and only 10 revealed gonococci—an interesting result in view of the claims made of the frequency of this infection in the production of blindness. Total deaths 7,499 (14.77:1000) of which 757 were due to tuberculosis (almost exactly the classic 10% of all deaths), 99 being non-pulmonary. 466 deaths were due to cancer, 51 to typhoid. 492 deaths were due to accident and violence, including 40 suicides and 28 homicides. 148 deaths were due to methods of transit, including 65 from railroads, 57 from automobiles, 8 from wagons, 15 from trolleys, 2 from motorcycles and 1 from aeroplane. The decedents included 3,261 born in Buffalo, 1,491 born in other parts of the U. S., 1,026 born in Germany, the remainder being distributed among other foreign countries and 67 unknown. 2,753 deaths occurred in institutions. The tubercular death rate fluctuates considerably but averaged somewhat over 2% of the population up to 1891 and has ranged from 1.14-1.40 since 1898, the last named percentage being that for 1916. The tap water has varied in bacterial count per c.c. from 3 to 6700, colon bacilli being found in 1 c.c. on 9 days in Jan, 1916.

The Practical Medicine Series, Chas. L. Mix, A. M., M. D., Editor. Vol. 1, Series of 1917, General Medicine, Frank Billings, M. S., M. D. and Burrell O. Raulston, A. B., M. D., Editors, 383 pages, illustrated, \$1.50. Price for Series of 10 volumes, \$10. The Year Book Publishers, Chicago.

This year's series is bound in green to distinguish from previous years. The high standard of this review of current literature is maintained. The influence of the war is shown even in regard to distinctly medical conditions.

University of Buffalo Bulletin. Dept. of Arts and Sciences, April, 1917, Food Preparedness by A. P. Sy, Ph. D.

This is intended for popular education and contains a summary of dietetic chemistry, a number of recipes, and various practical hints as to economy.

The Medical Clinics of Chicago, May, 1917, No. 6, Vol. 2. Published bi-monthly by the W. B. Saunders Co., Philadelphia. \$8 per year.

This number completes the volume and the next issue, July, 1917, will begin under a broader title: The Medical Clinics of N. America, bi-monthly as before, each number to consist of about 300 pages and to be limited to one city. The July issue will be devoted to the work of the Johns Hopkins Hospital and the Sept. issue to Philadelphia. N. Y., Boston and Chicago numbers will follow.

Impotency, Sterility and Artificial Impregnation. Frank P. Davis, Ph. B., M. D., published by C. V. Mosby Co., St. Louis, 138 pages, \$1.25.

The author enters to a considerable degree into sexual psychology and literature and customs which stimulate the sexual desire. The last part of the work is especially valuable and includes aphrodisiac drugs and methods tending to increase the probability of conception, short of the direct introduction of semen into the uterus.

Accuracy of Certified Causes of Death. In our review in the May issue, we incorrectly stated that the committee was under the auspices of the Statistic Bureau of the Metropolitan Life Insurance Co., inferring this from the identity of address for mail.

TOPICS OF PUBLIC INTEREST

The English Recognize the Importance of Giving Authority to Medical Officers. In 1904 the English War Office was reorganized by a committee, the chairman of which was Lord Esher. In this reorganization, no provision was made for a representative of the Medical Army Corps on the General Staff, or what corresponds to our War College. At the time the Surgeon General complained of this action. In reply to this complaint Lord Esher's committee stated that while too much importance could not be attached to the sanitary service of the army in peace or in war, the committee could not accept the views of the Surgeon General. Lord Esher's committee continued, "The Army Council is not, and can not be, a representative body as regards the several arms and departments. The Royal Army Medical Corps exists to serve the Army in a most important capacity, but the first object must be to create and maintain an Army, and this is the function of the Army Council. To admit the principle of representation would destroy the character of the Council."

This was the opinion of Lord Esher in 1904. Recently (London Times, February 3, 1917) Lord Esher writes as follows: "How much of the suffering undergone by our soldiers since the war began has been due to the shortsightedness of my committee, and notably of myself, will never be known. Certainly the control of the Adjutant General's branch over the Royal Army Medical Corps, was and is responsible not only for the early failure to grip the medical factors of the war, but they hampered conditions under which the Surgeon General has worked. His triumphs, and those of the Royal Army Medical Corps have been achieved in spite of obstacles that the subordination of science to ignorance, and of elasticity to military discipline explains, but can not justify." —V. C. V. The Journal of Laboratory and Clinical Medicine.

Kultur. We have called attention to the fact that while Kultur is etymologically identical with culture and preserves the figure of assisted growth, it implies the practical conception of the vegetable garden and of utilitarianism rather than the metaphor of the flower garden and the development of scholasticism. According to charges recently made, we may say that Kultur differs from culture as the rendering works differ from the crematory. The charge that the Germans are rendering fat and manure from human corpses depends entirely on the current meaning of the term Kadaver in Ger-

many. The existence of rendering works in connection with the military organization and utilizing dead animal matter of some sort is plainly shown by German newspapers. Certain utterances of German officials, as that accredited to Admiral von Hintze that glycerin was being extracted from dead soldiers and some circumstantial evidence as the bundling together of several corpses and the railroad communication from the war fronts to rendering works, apparently confirms the charge that the Germans are resorting to this extreme mode of efficiency. However, the majority of the Entente newspapers are inclined to allow the benefit of the doubt by conceding the German claim that *Kadaver* without specification means an animal body in German. While from the strictly utilitarian standpoint, there is much to be said in favor of even this extreme method, we should not be so practical as to ignore the fact that the strongest force in human life is sentiment. In fact, most previous wars have been won by psychic states rather than force of arms and, in the long run, exceptions to this rule become reduced to a minimum.

The Buffalo Children's Hospital graduated the following nurses, June 20: Misses Arlene Briggs, Alison Maxwell Hall, Elizabeth Ingleby, Janet Morrison, Anna Guitdear, Anna Max, Laura Chase, Jessie Sunderland; Mrs. Mabel Browning.

The Total Registration of men between 21 and 30, was 9,649,938; the preliminary estimate ten million. In Buffalo, 39% claimed exemption.

The Canadian Army Medical Corps contains 1800 surgeons.

Value of Anti-Variolar Vaccination. Of 378 cases of small pox occurring in Connecticut in 10 months from July 1, 1916, only 10 had been previously vaccinated. All these vaccinations dated back at least 15 years and 5 were 30 years old.

Capital Punishment (by hanging) has been abolished in Missouri, the 13th state which now has no death penalty.

Vital Statistics of Indians. For 1916, the total Indian population of the U. S. was 209,224. Births numbered 6,092; deaths 4,570. It will be noted that the birth and death rates were about 29 and 20 per 1000, as compared with about 35 and 16, respectively, for the general population. But it must not be forgotten that our death rate is artificially lowered by the immigration of fairly healthy adults, with a marked preponderance of males, and that the average birth rate is in-

creased by the high rate among the recently imported part of the population. With this allowance, the rates are not unfavorable. The American aborigines, so far as can be determined by ethnologic study, bred slowly and suffered a marked infant mortality, largely accounted for by the absence of substitute for mother's milk. It is probable that the Indian population is as great as it ever was before the discovery of America and it is certainly increasing.

Centenarians. A. C. Geyser, Med. Rev. of Revs., quotes statistics to the effect that the U. S. has 40 centenarians in 100 million inhabitants and Bulgaria 3,330 in 4 million. We do not believe that the statistics are accurate either way. In 12 issues, July 1916-June 1917, we mentioned, from definite and probably quite accurate press and medical journal reports, giving names, residences and dates, 22 centenarians, 9 alive, 13 very recently deceased. It is not conceivable that we simply happened on reports of more than half of all the centenarians in the country. As to Bulgaria, it is well known that statistics as to extreme longevity will fallaciously vary directly according to illiteracy. Given a poor and uneducated individual or class or nation, and in no offensive sense, it must be admitted that Bulgaria is such a nation in comparison with the U. S., records and personal knowledge of exact dates are unreliable. Both men and women are physically and mentally, at comparatively early ages and after 30 or 40 years of apparent senility, are commonly regarded as very old, even as centenarians, when their real age is somewhere between 75 and 95. In the hospital in which we served as interne, there was an old woman commonly called "Grossmutter" who quite sincerely believed herself to be a centenarian but had no exact knowledge of her age and who celebrated her birthday about twice a year. The U. S. Life Tables, based on the estimated population July 1, 1910, the reported deaths in 1909, 1910 and 1911, for registration states, give 50 native white males, and 80 native white females at ages from 100 to 106, per 100,000 born, i.e. of 100,000 born in any given year, these numbers will have survived. These tables are presumably as accurate as any that can be compiled. The population of the present area of the U. S. in 1815 was about 9 million. At the survival rates given above, there would be about 2,250 male and 3,600 female centenarians in the country at present, beside those representing survivals of immigrants. About half our population is composed of immigrants and their descendents but a considerable proportion of this half is of too recent advent to be included in an estimate of centenarians.

Civil Service Examinations. The position of Anatomist in the Army Medical Museum is vacant, salary \$1600. "At least a collegiate degree," a knowledge of the anatomy of disease-bearing mosquitos, of bacteriology, pathology and pathologic histology, ability to make photomicrographs, to prepare and keep in order museum specimens, are among the requirements. Examination July 11.

Male physicians are also needed for various services, at salaries ranging from \$4 a day for actual employment, or \$40 a month for part time, to \$150 a month. Some of the positions involve ocean travel and participation in scientific research and the present vacancies are quite widely distributed geographically. Examination July 10. Candidates should apply immediately to the Civil Service Commission, Washington, D. C., for form 1312 and announcements No. 1174 and 1200.

Camps for Medical Reserve Corps have been established at Ft. Riley, Kas., Ft. Benjamin Harrison, Ind. and Ft. Oglethorpe, Ga. 700 will be accommodated. The full course of training covers 3 months, the first devoted to drill as enlisted men, the second to book work and the third to field practice. If necessary, the last and even the second month's training will be omitted but the first is regarded as essential. The high importance attached to the training of medical officers as enlisted men will seem strange to many persons but it needs no explanation to physicians.

Utilization of Garbage, Etc. The Dept. of Agriculture is urging all cities to have their chemists analyse city waste and to provide for its utilization. The separation of garbage from glass, tin, wood, string, etc., is especially urged, with a view to using the former for feedstuff for animals, as is practiced in all German cities of more than 40,000. It is estimated that the garbage from 17 million Germans yields enough compressed, protein-rich cattle feed to produce 1½ to 2 million liters of milk daily. (By the way, note that we say food-stuffs for human beings and feedstuff for the lower animals). Most American cities which attempt to reclaim waste at all, render the fat and either throw away or sell as fertilizer the remaining organic matter. American garbage contains about 3% of fat, German about 1%. Buffalo has one of the model plants of the country for reclaiming all kinds of waste but, with the tendency to reduction of fat in garbage, the German method of using the entire organic waste for feedstuff is more economic. This method has been in use in Omaha for several years, large numbers of hogs being fed. The H. C. L. has

already had an influence on municipal waste. Garbage is reported as being reduced to half the former average in Chicago and some other cities and paper, formerly not worth saving except on a large scale, is now reclaimed to a considerable degree by private families and by persons supporting various philanthropies, instead of becoming an asset for the municipality.

Gasoline Production for 1917, is estimated at $2\frac{1}{2}$ billion gallons, of which $\frac{1}{2}$ billion will be exported.

Railroad Economics. It is estimated that the complete assemblage of man's apparel costs for transportation to any average point, 7 cents. The average receipts for all roads are $7\frac{1}{2}$ per ton of freight per mile and less than 2 cents per passenger per mile. It is estimated that an increase of 1 mill per mile on both would yield a satisfactory net profit. However, there are obvious reasons for putting the increase onto freight alone, as the burden is then widely distributed, whereas the cost of human transportation is individual and often occurs in an emergency.

Tuberculosis Hospitals are proposed for Kansas, at an initial cost of \$300,000.

Italian Women Physicians are serving in war hospitals for the first time.

Pure Food and Drug Activities. 1,036 successful suits against fraudulent nostrums were prosecuted in 1916. The packing and shipment of oysters are now under government control and it is believed that the danger of typhoid from this source is practically eliminated.

Base Hospital Units for France. On May 1, it was officially announced that the six following units had either sailed or would do so shortly: No. 2, Presbyterian Hospital, N. Y.; No. 4, Lakeside Hospital, Cleveland; No. 5, Harvard Medical School of Boston; No. 10, Pennsylvania Hospital, Philadelphia; No. 12, Northwestern University, Evanston; No. 21, Washington University Hospital, St. Louis.

Poliomyelitis. It is estimated that about 52,000 cases require after care in N. Y. State.

The Colorado Fee Splitting Bill requires that attendants must either render separate bills or that the proposed division

shall be clearly stated. Bona fide permanent partnerships, the employment and retention of fees for services of assistants are allowed but services rendered by more than one partner must be itemized. Special partnerships for particular cases are not allowed.

German Casualties up to May 1, 1917, are said to total 4,245,804. About 1,000,000 have been killed. 1,500,000 of the casualties consisted of slight wounds. So far as can be judged, the permanent depletion of strength is about 2,500,000 out of a total available military strength of 7,000,000 at the beginning of the war and an increment of about 1,500,000 from the recruits of 1915-17. Similar estimates for May 1, 1915, gave over 1,600,000 killed, nearly 500,000 prisoners and over 1,800,000 wounded.

Electric Delineation of Viscera. The enthusiastic preliminary reports of this method, which we have already described in abstract, have not been fulfilled and the British Medical Journal practically withdraws its sanction and implies that the method should be forgotten.

The Eclectic Examining Board of Florida was deposed by the governor Mch. 2, on account of questionable practices. Some one ought to have sufficient command of English to frame a definition of Eclectis, for legislative purposes, based on therapeutics instead of ethics.

The Merger of the University of Pennsylvania, Jefferson and the Medico-Chirurgical Schools represents a combined capital of 4 million and 6 million more is required.

License for Vivisection Denied. Rutgers College, New Brunswick, N. J., has been denied a license on the ground that the state law regulating such licensure and said to have been drawn especially with regard to the Rockefeller Institute, allows the granting of licenses only to institutions for scientific research and not to colleges and academies.

Grain Storage. The present situation regarding the cereal supply of the world suggests that the public granaries mentioned in the Bible and general in ancient literature were very practical forms of the war chest. Quite aside from war disturbances, it would in the long run be better for both producers, consumers and intermediate manufacturers such as millers and bakers, though not for speculators, if a fairly uniform price could be maintained for staple grains. The

government, by buying at any rate below a fixed price and selling at a fixed maximum could not only benefit the people but perhaps make a profit that would reduce taxes and that would compete with private business only when, on the one hand, some form of state aid to farmers would be desirable and, on the other hand, when speculation or crop failures would justify a similar indirect aid to the ultimate consumers. Grains keep remarkably well, with very moderate precautions; indeed they have germinated after thousands of years in tombs and Pompeian bread has been found at least eatable after nearly 2000 years. The problem of storage is not so impracticable as might seem. The Buffalo elevators have a capacity of about 25 million bushels—a year's supply for the entire population of the state outside of N. Y. City. Boats, in harbor during the winter, in Buffalo, store 14-27 million bushels.

Opportunity for Fame. The same old plan of co-operative fame, inclosing \$15 and photograph, has again been rendered available, for Buffalo and vicinity. If supposedly shrewd business men can even contemplate the success of the plan, why argue that we cannot afford war?

Medical Reserve Corps. Information from Surgeon General.

a. Grade for original commissions is determined by the Advisory Board and depends upon age, professional qualifications and former military experience. A great majority of original commissions are in the grade of 1st Lieutenant.

b. All officers are eligible for promotion up to the grade of Major after a reasonable period of active service. They are entitled to pension for disability.

c. The service will be for the period of the war. A few officers may be retained after the war if the exigencies of the service require, but not unless they express a desire to be so continued in the service.

d. Circular of information regarding equipment and clothing is on file at the office of the Buffalo Medical Journal.

e. An officer is not required to furnish any equipment in the way of books, typewriters, etc.

New State Traffic Regulations. The bill discussed last fall, has become a law, with few alterations. It applies to all parts of the state except N. Y. City and with common sense qualifications, to all vehicles. Some of the principal points are as follows: In meeting or passing a street car, a 7-foot interval must be left. This apparently means that automobiles need

not stop for a standing street car, if the street is of proper width but Main, Broadway, Niagara and Fillmore are the only streets in Buffalo on which cars run, which allow a 7-foot interval. Drivers should realize, however, that this does not allow them to plow at full speed through a line of pedestrians trying to board a car and, that in a down town district, the traffic officer has probably stopped all traffic parallel with the car tracks so as to allow vehicles to cross. It should also be remembered that the authorities recognize many cases in which a law does not mean what it says. Except for orders from traffic police, each vehicle must recognize the right of way of a vehicle approaching from a cross street at the right. It occurs to us that this rule will produce confusion when, as often happens, vehicles approach from both directions on two intersecting streets but, on the whole, it is better than right of way determined by points of the compass as there is always a question as to diagonal streets and between the claims of a thoroughfare crossing a little traveled street which has the right of way according to the compass. Moreover, in strange places, one is often confused as to points of the compass. Slowly moving vehicles must keep near the curb. This is a good law but drivers of such vehicles will not obey it and the police seem disinclined to enforce it, though they may, now that it is formally on the statute book. Vehicles emerging from an alley, garage entrance, etc., must be slowly and carefully driven with due warnings. Warning must be given of a turn, sudden decrease of speed, stop, or start when the latter involves turning into the stream of traffic. Vehicles must not stand farther than 6 inches from the curb, measured from both front and back wheels (several fines have already been imposed on this account), nor within 10 feet of a hydrant or cross walk, nor in the zone where street cars receive and unload passengers, nor within 15 feet of the entrance of any public building. Street cars have right of way between intersecting streets and vehicles must get out of the tracks immediately on warning. This rule and one about slowly moving vehicles ought to suffice to keep horse drawn vehicles from the middle of the road. This is one of the greatest present causes of congestion and, indirectly, of accidents. Use of the streets and public places as repair shops is forbidden, except in emergency. Trucks must be loaded so as to prevent loud noise, any material projecting more than 4 feet to the front or rear must be marked by a red flag or lantern. Bicycles and motorcycles shall not carry passengers except on secure seats, with provision of foot rests and hand grips. Persons are forbidden from riding on the rear of a vehicle without consent of the

driver and from climbing onto standing cars or sounding horns on them. Hand carts and sleds are not allowed on streets or sidewalks except under local permissive regulations. We question, however, whether the police or any one else will be unduly severe with children. Reckless driving and jay-walking in the business districts are forbidden. Cities are authorized to enact local ordinances, but regulations must be posted conspicuously on the streets to which they apply, and we understand that they must not be directly antagonistic to the state law.

Centenarians. Thomas Wardall of Seattle, born in 1815, is still living. Amos Remington died near Harrisville, Vt., June 7, aged 101. He used tobacco and liquor all his life. Moral omitted. Mrs. Easter Waller died near Laurel, Del., June 7, aged 105.

Military Statistics of Population. The registration for the draft has ranged from 57.9% of the estimate of males 21-31, for Oregon, to 104.7% for Illinois, averaging about 90% and totaling 9,250,000. Estimates of aliens (unnaturalized) from enemy countries: Germany, 2,349,000, males over 21, 136,000; Austria-Hungary 1,376,000 and 447,000; Turkey 188,000 and 93,000; Bulgaria, 11,000 and 8,000. The relatively small number of adult male, unnaturalized Germans is due to the very general naturalization of this race up to 1910, and the return of reservists at the beginning of the war.

N. Y. State Laws. Optometry. The present board is continued. The board shall consist of 5 persons, the term for each member being 5 years, members being required to have practiced optometry 5 years. Educational requirements include two years of high school, increased to four after Jan. 1, 1920, 3 years experience in an optometrist's office or graduation from an approved school of optometry. The usual exemptions for those already in practice, are reenacted. Each customer or person fitted with glasses shall receive a bill of purchase with the signature, address and number of certificate of registration or exemption of the optometrist, a specification of the lenses and the price charged. Optometrists shall not assume the title of doctor. Fees, penalties for violation of law, etc., are provided.

Consolidated Health Districts may adopt the estimate system provided elsewhere and may issue certificates of indebtedness pending available resources from taxation.

A Commission for Assuring an Adequate Food Supply is provided and given general powers.

A Bureau of Physical Training is provided, in connection with the Military Training Commission, the present bill dealing mainly with salaries and allowances.

Play Grounds and Recreation Centers. This law authorizes the acquisition and management of such places in cities of the second class and villages.

Undertaking. Examination and license are provided on the general terms applying to the practice of medicine or special cults.

Hospital Development Commission. This is to examine sites, make general arrangements for development of existing and future hospitals, to accommodate properly the insane and feeble minded.

State Hospital at Raybrook, Free Patients. One year's state citizenship is required for males, 5 years' residence for females not citizens. Provision is made for filling vacancies on application to local health officers.

State Civil Service Commission Announcement. Assistant Chemist, \$1,200-1,500. Physiological Chemist, \$1,500. Supervising Matron and Dietitian, \$720 and maintenance, Training School for Girls, Hudson, and possibly other vacancies from same eligible list. Physical Instructor, female, \$45 a month and maintenance, at Training School at Hudson, Western House of Refuge at Albion, Reformatory at Bedford, and, at lower salaries, at various state hospitals. Trained Nurse, male and female, \$420-600 and maintenance, at various institutions. Applications should be made before July 16 to the State Civil Service Commission, Albany, for forms. Examinations will be held July 28.

The National Committee for Mental Hygiene has created a sub-committee on furnishing hospital units for nervous and mental disorders to the United States government, with the approval of the Surgeon General. Dr. Pearce Bailey of New York is chairman. Further information and application forms on application to the National Committee for Mental Hygiene, 50 Union Square, New York City.

The American Red Cross is one of the Government activities in the line of preparedness. During times of peace the Red Cross maintains a skeleton organization of all its varied activities, assuming the obligation to immediately expand in every direction so as to undertake the tremendously responsible position it has conferred on it by Act of Congress in time of war. The Regular Army, the National Guard of the

different states, all make plans for the medical and surgical care of its soldiers on a strictly peace basis. No proper provision can be made under their organization in their medical departments for anything more than first-aid and field hospital care. An army must be kept as mobile as possible, so there is no arrangement made during peace times for the equipment and transportation of large massive hospitals capable of taking care of hundreds of badly wounded soldiers. In the words of the military department the army can only take care of its sick and wounded men in the first zone; that is near the firing line. The further care of injured men is assumed by the organizations of the American Red Cross. Anyone who knows anything of military affairs can see the necessity of maintaining some military control of the soldiers after they have passed out of the first zone and have been sent further back of the lines. The Red Cross, by act of Congress, is the only medical organization permitted to take this control. Recognizing the value of a modern well equipped general hospital, with its staff of specialists, its more cumbersome equipment, the army asks the American Red Cross to organize and equip a series of hospitals with their staffs to be placed as near the first line as safety allows, to take over the care of the badly injured soldier, giving them the same treatment they would receive if they were civilians and came to a modern civilian hospital. These hospitals are called "Base Hospitals,"—a misnomer from a civilian point of view—but properly in a military sense, as they are at or near a supply base. On request of the Washington authorities the Buffalo General Hospital was asked to equip and supply the staff of one of these hospitals. To furnish the duplicate of a modern hospital in beds, furnishings, X-ray instruments, operating equipment, etc., it has been found to come nearer in cost to \$100,000 than the \$25,000 originally estimated by the Army medical officers. Buffalo has almost completed its first Base Hospital. Buffalo should begin at once to organize and equip another just as soon as this first one is ordered for duty. The total number of Base Hospitals under organization will give accommodation to 25,000 wounded and sick men. This is not enough if the United States places 2,000,000 men on the firing line.—(Statement prepared by Dr. Marshall Clinton.

University of Buffalo Commencement. June 8, exercises were held jointly by all departments, this being the 71st annual commencement for the Dept. of Medicine, the 30th for Pharmacy, 29th for Law, 25th for Dentistry, the Dept. of Arts and Sciences founded in 1913, not yet having a graduating class. 60 were graduated in medicine, two diplomas

being withheld as the graduates were under 21. The list of graduates, with hospital appointments, is appended. Drs. Kujawa, Moscato, Patterson and Pelham graduated with honors.

The Arthur G. Bennett Prize in Ophthalmology was awarded severally to Francis M. Kujawa and Vincent Charles Moscato, both having the same standing. The Roswell Park Book Prize in Surgery was awarded severally to Francis Joseph Butlak and Franklin Austin Knope, both having the same standing. The silver skull presented by the instructors in Anatomy for the first two years was awarded to Frank H. Valone.

Atkins, Leslie J., Buffalo General Hospital.

Barone, Nathaniel L., German Deaconess Hospital, Buffalo.

Butlak, Francis J., Sisters' Hospital, Buffalo.

Campbell, Robert J., Moses Taylor Hospital, Lackawanna.

Davies, Gertrude R., Children's Hospital, Buffalo.

Derby, Eugene F., Oklahoma General Hospital.

DeVita, Michael A. R., Cincinnati General Hospital, Cincinnati, Ohio.

Dobbie, Robert Paul, Buffalo General Hospital.

Dominicis, Rocco N., German Deaconess, Buffalo.

Eaton, Earl L., Buffalo General Hospital.

Ellison, Albert R., Erie County Hospital, Buffalo.

Fischer, Urban A., Emergency Hospital, Buffalo.

Foley, Mary J., Women's Medical College Hospital, Philadelphia.

Gibson, Wm. J., Moses Taylor Hospital, Lackawanna.

Glover, Arthur C., Arnot-Ogden Hospital, Elmira.

Goundry, Thomas, Lafayette General Hospital, Buffalo.

Greco, Antony J., Buffalo General Hospital.

Griffin, Grace H., Rochester State Hospital, Rochester.

Hamilton, Samuel T., Emergency Hospital, Buffalo.

Hart, John G., Buffalo General Hospital.

Higgs, William E., Youngstown City Hospital, Youngstown.

Hoehman, Howard D., Emergency Hospital, Buffalo.

Johnson, Harold M., Cincinnati General Hospital, Cincinnati, Ohio.

Jones, Wm. H., Buffalo General Hospital.

Jung, Daniel, Jr., St. Luke's Hospital, Cleveland, Ohio.

Knope, Franklin A., St. Mary's Hospital, Rochester.

Kofford, Boyer S., Youngstown City Hospital, Youngstown.

Kujawa, Francis M., Sisters' Hospital, Buffalo.

Kummer, Clarence P., Buffalo General Hospital.

LaDuca, Joseph P., Emergency Hospital, Buffalo.

Laport, Raymond G., Emergency Hospital, Buffalo.

Luke, Ray H., Buffalo General Hospital.

- Lojacono, Salvator C., Elizabeth Steele Magee Hospital,
MacNaughton, Wallace F., Boston Dispensary Hospital, Bos-
ton, Mass.
- McClellen, Frederick C., New York Post Graduate Hospital.
- Moscato, Vincent C., Buffalo General Hospital.
- Nowak, John J., New York Post Graduate Hospital.
- Palmer, Frederick W., Youngstown City Hospital, Youngs-
town, Ohio.
- Patterson, Harold A., follow Laboratory work.
- Pelham, Kate, Detroit Hospital for Women.
- Pfaff, Norman J., St. Mary's Hospital, Rochester.
- Robinson, Francis J., St. Mary's Hospital, Rochester.
- Schwartz, Frederick L., Erie County Hospital.
- Seibetta, Samuel L., Columbus Hospital, Buffalo.
- Scott, Harry A., Erie County Hospital.
- Scully, Alice, New England Hospital for Women and Child-
ren, Boston.
- Smith, Kenneth A., Moses Taylor Hospital, Lackawanna.
- Strong, Lyman J., Buffalo General Hospital.
- Swierat, John V., Kings Park State Hospital, Kings Park, L.I.
- Tench, Ellsworth M., Cincinnati General Hospital, Cincinnati.
- Teresi, Charles C., Erie County Hospital.
- Thoma, Earl W., Buffalo General Hospital.
- Thompson, Myron A., Buffalo General Hospital.
- Tillou, Donald J., Arnot Ogden Hospital, Elmira, N. Y.
- Traver, Haworth R., Panama Hospital, Panama.
- Twist, Edward A., St. John's Hospital, Long Island.
- Walsh, Anna P., New England Hospital for Women and
Children, Boston.
- Wood, Edwin F., Hahnemann Hospital, Rochester.
- Yellen, Hiram S., German Deaconess Hospital, Buffalo.
- Zielinski, Ladislau E., Sisters' Hospital, Buffalo.

Localized Tetanus. H. Roger, *Le Progres Med.*, May 12, describes a case, strictly localized in one leg, death from purulent peritonitis due to enterococcus.

Treatment of Peritonitis by Ozone. O. Laurent, *Le Progres Med.*, May 19, page 169, advocates this method supplemental to laparotomy, introducing the gas through the drainage tube.

OUR CONTEMPORARIES

The March issue of the Polyclinic of London consists, with a single exception, of abstracts from medical journals of the U. S. The exception is from a South African source.

La Revue de Chimiothérapie has recently begun issue from Paris, with Dr. J. Laumorian as editor.

We acknowledge the courtesy of the Journal of Sociologic Medicine, published by the American Academy of Medicine, the "University Club" of the medical profession, in quoting at length, our editorial on Health Insurance, published in March.

SOCIETY MEETINGS

Brief reports and announcements of meetings of societies of Western New York, and those of general scope, are requested from Secretaries. Copy should be on hand the fifteenth of the month. Full transactions will be published at cost of composition.

Elmira Academy of Medicine. Regular meeting at Elmira, June 20. Cardio-therapy of the Obese, C. W. Lieb; title to be announced, A. W. Booth. R. B. Howland, M. D., President; O. J. Bowman, M. D., Secretary.

Buffalo Academy of Medicine. May 23, Section of Pathology, Some Modifications and Controls of the Wassermann Reaction, A. A. Thibaudeau; Research on Regeneration of Bone in Fractures, Roland O. Meisenbach.

June 13, the 25th anniversary of the establishment of the Academy was celebrated by a banquet at the Lafayette Hotel, the President, Dr. Lawrence Hendee, acting as toastmaster and showing stereopticon views of the early physicians and landmarks of Buffalo. Major J. W. Grosvenor, President 1903-4, in a brief address, presented evidence that he had been incorrectly marked as dead by the printer. Dr. DeLancey Rochester reviewed the history of the earlier organizations of the profession of Buffalo and of the steps taken to amalgamate them as sections of a single Academy. Dr. John H. Pryor spoke on the Aims and Objects of the Academy and Hon. Charles B. Sears on Patriotism.

During the meeting, the election of officers for the ensuing year took place, the following ticket, without opposition, being elected: Pres. Irving M. Snow; Sec. Herbert A. Smith; Treas. Benjamin F. Schreiner; Trustee for one year, Earl P. Lothrop.

The various reports were presented in printed form and have been distributed to the members. The Section Officers for the coming year are: Section of Surgery, J. B. Cross, Chairman, J. P. Brennan, Sec.; Section of Medicine, DeWitt Sherman Chairman, Jacob Otto Sec.; Obstetrics and Gynae-

cology, Herman K. De Groat Chairman, Edward E. Meister Sec.; Pathology, Wm. G. Bissell Chairman, Karl Eschelman Sec.

The Alumni Association of the Medical Dept., University of Buffalo, (organized 1875), held its 42d annual meeting May 31-June 2, independently of commencement on account of conflict with the meeting of the A. M. A. in N. Y. The officers of the meeting were as follows: Walter D. Greene, '76, President, Buffalo, N. Y. William H. Bergtold, '86, 1st Vice-Pres., Denver, Colo. Henry A. Eastman, '92, 2d Vice-Pres., Jamestown, N. Y. Ross G. Loop, '97, 3d Vice-Pres., Elmira, N. Y. Henry A. Stadlinger, '97, 4th Vice-Pres., Buffalo, N. Y. M. Louise Hurrell, '02, 5th Vice-Pres., Rochester, N. Y. Julius Richter, '04, Secretary, Buffalo, N. Y. Frank E. Brundage, '09, Treasurer, Buffalo, N. Y.

Representative of the Medical Alumni on University Council, Peter W. Van Peyma, '82, Buffalo, N. Y.

Trustees: Charles L. Preisch, '98, Chairman, Lockport, N. Y. Henry C. Buswell, '88, Buffalo, N. Y. Grover W. Wende, '89, Buffalo, N. Y. George F. Cott, '84, Buffalo, N. Y. Lesser Kauffman, Secretary, Buffalo, N. Y.

Executive Committee: William F. Jacobs, '08, Chairman, Buffalo, N. Y. Harry R. Trick, '01, Buffalo, N. Y. William G. Bissell, '92, Buffalo, N. Y. The President, Secretary and Treasurer, ex-officio.

Reception Committee: Fredolin Thoma, '87, Chairman; Edith R. Hatch, '06, Vice-Chairman; H. R. Hopkins, '67; Francis E. Fronczak, '97; Robt. Hebenstreit, '72; Augustus W. Hengerer, '02; Burt Hoyer, '82; John Tinkler, '07; Nellie Victoria Chappell, '92; John Kohlhas, '12.

The officers elected for the ensuing year are as follows: President, Wm. G. Bissell, '92, Buffalo; First Vice-President, Jacob Frank, '82, Chicago; Second Vice-President, Geo. E. Blackham, '70, Dunkirk; Third Vice-President, H. J. Knickerbocker, '98, Geneva; Fourth Vice-President, Edith R. Hatch, '06, Buffalo; Fifth Vice-President, John A. Conway, '03, Hornell; Secretary, A. H. Aaron, '12, Buffalo; Treasurer, James Sullivan, '10, Buffalo; Representative of Medical Alumni on Council, Grover W. Wende, '89, Buffalo; Trustee, Walter D. Greene, '76, Buffalo; Executive Committee, Chairman, Wm. F. Jacobs, '08, Buffalo; N. L. Burnham, '96, Buffalo; Harry Weed, '03, Buffalo.

Thursday, May 31st. "The Nature and Theory of Fatigue." F. H. Pratt, A. M., M. D., Prof. of Physiology, Buffalo, N. Y. "Some Studies in Nephritis." Richard N. DeNiord, M. D.,

'15, Buffalo, N. Y. "Practical Experiences with Radium." Dr. J. A. P. Millet, N. Y. State Institute for Malignant Diseases, Buffalo. "Soil Pollution." Victor G. Heiser, M. D., Director for the East, The Rockefeller Foundation, International Health Board, New York City. Evening. Class Reunions. Classes of '67, '72, '77, '82, '87, '92, '97, '02, '07, '12, will hold their reunions and dinners as arranged by the respective class committees.

Friday, June 1st. "The Relation of the Internal Secretions to Gynecology." Samuel W. Bandler, M. D., Prof. Diseases of Women, N. Y. Post Graduate Medical School and Hospital, New York City. "Two Years on the French Front." Illustrated with Lantern Slides, by our fellow alumnus, John Hanavan, M. D., '06, East Aurora, N. Y. Luncheon in College Library. Annual Business Meeting. Election of Officers and other routine business. Gynecology Diagnostic Clinic. Professor Bandler. "Some Practical Considerations in Cardiac Conditions." Arthur J. Patek, M. D., Associate Professor of Medicine, Marquette University, Milwaukee, Wis. "Some Phases of War Time Service in U. S. A." Illustrated with Lantern Slide and Motion Picture films. J. I. Mabee, M. D., Major Medical Corps, U. S. A. (Major Mabee absent on military duty). Fraternity Reunions. The College Fraternities, Nu Sigma Nu, Phi Rho Sigma, Omega Upsilon Phi, will entertain their Alumni at their Chapter Houses.

Saturday, June 2d. "Immunity in Syphilis." Hans Zinsser, M. D., New York, Prof. of Bacteriology, College of Physicians and Surgeons, Columbia University. "A Critical Consideration of Some of the Present Problems in Syphilis." Wm. Allen Pusey, M. D., Professor of Dermatology, University of Illinois, Chicago, Ill. "Cultural Limitations and the Neurasthenic Patient." Robert T. Morris, M. D., Professor of Surgery, Post Graduate Medical School and Hospital, New York City. Luncheon in College Library. "Typhus Fever Vaccination." With experiences in Serbian Epidemic in 1916. Harry Plotz, M. D., Mt. Sinai Hospital Staff, New York City. Diphtheroid Infections with Special Reference to Hodgkins' Disease, Dr. R. R. Mellon, Pathologist, Hahnemann Hospital, Rochester. Annual Alumni Dinner. Banquet Hall Hotel Statler. Delancey Rochester, M. D., '84, Toastmaster.

The Medical Society of the County of Erie held a special meeting, June 7, in Alumni Hall, University of Buffalo, to recruit for the Medical Reserve Corps. Lt. Col. A. H. Briggs, M. D., a veteran of the Civil and Spanish Wars, spoke of the importance of disease which until the present war has killed

more men than strictly military casualties. He also referred to the unpreparedness at the time of the Spanish-American War. He stated that he had kept the check sent him for final payment of services during that war and would invest the entire amount in Liberty bonds. Capt. B. J. Lee, 1st Lt. J. B. Clark of N. Y. and Capt. Herbert A. Smith of Buffalo, represented the Medical Reserve Corps and described the duties and pay of officers. It was stated that about a quarter of the entire profession of the country would be needed and that the quota for Buffalo would be about 200. (Owing to the necessity of leaving enough physicians to care for the civil population, it is obvious that the cities will be drawn upon to a greater degree than the country). To date, no where near the number of volunteers have been received from Buffalo, whereas many cities have complied fully with the demand. Curiously enough, the older men have volunteered in larger numbers, proportionately, than the younger. It may not be out of place to call attention to the fact that physicians of military age are subject to draft and that, at present, there is no system of drafting officers so that, as has been pointed out to some reluctant to volunteer as surgeons, the draft means service as a private. An interesting sidelight was thrown on domestic and social economics in the U. S. when Capt. Smith warned men unwilling to abandon lucrative private practices that these might dwindle and remarked "Consider the value, then of a fixed pay of \$2400 a year (for Captain), \$2,000 of which you can send home to the family." Probably this is no exaggeration of the average generosity of American heads of family (titular). Reserve officers from this part of the country will probably be sent to Ft. Benjamin Harrison for training.

The United Physicians of Buffalo. On May 24, a large meeting of physicians organized an association to include all members of the profession of Buffalo to last during the war. The following plan of organization was unanimously adopted:

The constitution is as follows:

The name of this organization shall be The United Physicians of Buffalo.

Its objects shall be to render patriotic service to the government in every way open to the profession; to provide care and treatment for sick and wounded soldiers and sailors; to care for the practices of doctors enlisted or drafted for military duty and their families, if necessary; to meet emergencies affecting the medical profession which may arise dur-

ing the war, and to act in co-operation with other civic, patriotic or philanthropic organizations or committees.

Its membership shall be open to all physicians of Buffalo.

Its officers shall be a President, a Vice-President, a Secretary, a Treasurer, and an executive committee of seven members. The elected officers shall be ex-officio members of the Executive Committee. The officers shall be elected by this organization. The Executive Committee shall be appointed by the President. The officers first elected shall hold office for the remainder of the year 1917, or until their successors are elected. Thereafter the term of office of the elected officers shall be one year, or until their successors are elected.

Needed funds shall be raised by assessment voted by the membership of the organization.

The Executive Committee may appoint an Advisory Committee which shall represent all elements of the profession.

The officers elected at this meeting were: President, Dr. John H. Pryor; Vice-President, Dr. Arthur W. Hurd; Secretary, Dr. George A. Sloan; Treasurer, Dr. George W. Critchlow.

The president appointed the following physicians to serve on the Executive Committee: Dr. James W. Putman, Dr. Francis M. O'Gorman, Dr. Edward J. Meyer, Dr. Earl P. Lothrop, Dr. Charles S. Jewett, Dr. F. Park Lewis, Dr. Irving W. Potter.

Officers are ex-officio members of the Executive Committee and hold office for one year. The Executive Committee have appointed an Advisory Committee of about 60 physicians representing all elements in the profession: Dr. B. Bartow, Dr. A. G. Bennett, Dr. E. G. Bodenbender, Dr. C. R. Borzilleri, Dr. E. A. Bowerman, Dr. A. H. Briggs, Dr. J. Burke, Dr. H. C. Buswell, Dr. A. D. Carpenter, Dr. F. J. Carr, Dr. A. H. Cook, Dr. L. M. Francis, Dr. F. E. Fronczak, Dr. E. L. Frost, Dr. J. P. Gimbrone, Dr. W. S. Goodale, Dr. M. Hartwig, Dr. H. E. Hayd, Dr. L. Hendee, Dr. G. A. Himmelsbach, Dr. H. R. Hopkins, Dr. S. Y. Howell, Dr. L. Rowe, Dr. B. C. Johnson, Dr. L. Kauffman, Dr. C. N. Kendrick, Dr. J. E. King, Dr. P. LeBreton, Dr. J. H. Lewis, Dr. J. S. Lewis, Dr. E. H. Long, Dr. M. D. Mann, Dr. W. H. Mansperger, Dr. B. C. Maycock, Dr. W. H. Marcy, Dr. J. A. McLeod, Dr. T. H. McKee, Dr. E. R. McGuire, Dr. J. G. Meidenbauer, Dr. F. A. Mendlein, Dr. W. M. Mehl, Dr. J. J. Mooney, Dr. G. T. Mosely, Dr. F. J. Parmenter, Dr. J. H. Potter, Dr. W. S. Renner, Dr. L. Reu, Dr. De L. Rochester, Dr. H. C. Rooth, Dr. R. M. Schley, Dr. DeW. H. Sherman, Dr. I. M. Snow, Dr. Herbert A. Smith, Dr. C. G. Stockton, Dr. J. C. Thompson,

Dr. E. S. Tobie, Dr. P. W. VanPeyma, Dr. T. J. Walsh, Dr. A. L. Weil, Dr. G. W. Wende, Dr. A. E. Woehnert, Dr. J. V. Woodruff, Dr. J. F. Whitewell, Dr. G. W. York.

The following plan was presented for consideration at a meeting at the Hutchinson High School, June 12th.

As soon as a physician knows the date of expected departure for military service he should send a notification to his patients, stating the possible duration of his absence and the names of the physicians he recommends to be called in case of illness.

He may make any arrangements he pleases, financially or otherwise, with the physician selected to care for his practice.

When other physicians not designated by him are consulted they should inquire who has been the attending physician, and if the physician named is absent on military duty all fees received for services rendered in substitution must be delivered to the family of the absent physician, or to him personally upon his return.

The amount of the collection should be recorded with the name of the patient or family making the payment.

Should it come to the knowledge of the physician who has been absent on military duty that this agreement has been violated a complaint with the facts should be filed with the Secretary, who will present the matter to the Executive Committee for consideration and decision.

Every reasonable effort should be made to secure retention of any appointments held by the physician during the period of his military service. The vacancy should be filled temporarily during his absence.

If the physician at any time during military service decides to remain permanently in government service and relinquish local practice and residence he should promptly notify the Secretary and those selected to assume his practice.

The Executive Committee suggests a committee be appointed to collect outstanding accounts of those physicians who enter service at a cost of 10%.

It is agreed that no members of this organization will render medical service to any patient or family or continue in attendance upon the same after the physician has returned from service and resume practice.

SUGGESTED FORM FOR NOTIFICATION TO PATIENTS.

M.....

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Dear.....

As a member of the United States (Army-Navy) I have been ordered into active service by the Government, and on that account I am writing you, so that, in case of illness, you may summon

Dr. of
Telephone No....., who has kindly consented to attend my patients in my absence. I can heartily recommend him.

Sincerely,

In case of any illness, trouble or emergency, financial or otherwise, affecting yourself or any dependent, communicate, or have others do so, with the Secretary, whose name and address you should carefully preserve.

If any dependent, particularly wife or child, is affected by illness the physician in attendance should report when a trained nurse, hospital care or special service is required if financial circumstances will not permit of this expenditure. Any assistance rendered to dependents will constitute an act of simple justice. It will be rendered in secret.

The second convocation of the **American College of Physicians** occurred on Tuesday, June 5th, 1917, at the Hotel Nassau, Long Beach, Long Island, N. Y. About seventy eight of the members were present. The impressive ceremony was presided over by the President, Dr. Reynold Webb Wilcox.

About forty candidates in academic costume were introduced with the appropriate words by the Secretary-General, Dr. Heinrich Stern, to the President, who handed them their certificate of election to Fellowship. The American College of Physicians now consists of about one hundred and ten Fellows.

In order to be considered eligible for Fellowship in the American College of Physicians by the Council of the College it is necessary that a candidate be a member of the American Congress on Internal Medicine; be a Doctor of Medicine for ten years, a teacher of medicine and laboratory investigator of wide clinical experience. He must have published either frequent contributions to medical periodicals or noteworthy medical literature.

The next convocation will take place in Pittsburgh during Christmas week, together with the meeting of the American Congress on Internal Medicine and the American Association for the Advancement of Science, with which both organizations are affiliated.

OBITUARY

Readers are requested to report promptly the death of all physicians in Western New York, or former residents of this region, or graduates of any medical school in Western New York, and to notify the families of the deceased of our desire to publish adequate Obituary notices.

Of 116 death notices published in the last year, 15 were of physicians or scientists of renown, or of persons not themselves physicians but well known to the local profession. 101 were of physicians who either resided in our territory or had previously practiced in it or had graduated from Western N. Y. medical schools.

Dr. Gustav Jaeger, the inventor of special woolen underwear, died in May in Stuttgart, having been born in Wurtemberg in 1833.

Dr. Thomas A. Dundas, N. Y. University 1878, died at his home in Elmira, May 27, aged 61.

Dr. George W. Betts, N. Y. University, 1880, died at his home in Pulaski of apoplexy, April 18, aged 58.

Dr. Clement T. Guillaume, Eclectic of Cincinnati, 1880, of Boonville, died in Utica, May 10, aged 61.

Dr. Fitch Brewer, Buffalo 1913, of Buffalo, died at the Sisters' Hospital, following an operation for appendicitis, June 8.

Dr. Edward J. Cook, Niagara 1895, of Buffalo, died at his home, June 8, aged 74. He was born in Clarendon, N. Y., and was educated at the Rochester City University. In early life, he was a Methodist clergyman, serving as circuit minister in western N. Y., where he established 12 churches, among them one at Holley, of which he was pastor for a number of years. He began the study of medicine in 1891 and, after graduating, practiced in Buffalo. His only son is Dr. Bruce L. D. Cook of Buffalo.

Dr. Harry Lane, Willamette University, Salem, Oregon, 1876, died at San Francisco, May 25, aged 62. He was born in Washington and was U. S. Senator from 1913 till his death.

Robert K. Smither, a prominent pharmacist of Buffalo, died at his home May 24, after an illness of five days. He was born in Winchester, Eng., Oct. 10, 1851, came to Canada with his parents when 7 years old and had his first experience in pharmacy in Brampton, Ont. He came to Buffalo as a young man and joined the staff of W. H. Peabody at the corner of Main and South Division Streets. Later, he became manager of the W. R. Crumb pharmacy at the corner of Niagara and Carolina Streets, and, in 1875, opened a store of his own at the corner of Niagara and Jersey Streets. Still later, he formed a partnership with George I. Thurstone and established the Smither-Thurstone Pharmacy at the corner of Elmwood Avenue and Bryant Street, and, independently, the Parkside Pharmacy at Main Street and Leroy Avenue. The last three stores are still in operation. He served as supervisor from the old 9th ward for three terms from 1879 and as alderman from the 24th ward, for six years from 1891, being president of the board in 1895.

Dr. Wm. Grosvenor Ring, Buffalo 1884, died at his home in Buffalo, April 16, aged 57. He was the son of the late Dr. Wm. Ring of the class of 1847 and brother of the late Dr. Charles A. Ring, of the class of 1878. He was born in Buffalo, Nov. 10, 1860, and practiced there for nearly a third of a century. Death was quite sudden, following an acute exacerbation of a chronic valvular endocarditis. He leaves a widow and a son 6 years old.

Dr. Clayton E. Spire, Cleveland 1897, of Jordan, N. Y., aged 40, was killed by a train striking his automobile, May 17. (Of 45 deaths of physicians listed in the Jour. of the A. M. A., June 9, 3 were due to train-automobile accidents, 1 to street car, 1 to suicide by gun shot and 1 to overdose of morphine).

PERSONAL

Dr. C. J. Patterson, Physician in Charge of the Marshall Sanitarium of Troy, attended the banquet of the Buffalo Academy of Medicine, June 13. He was formerly a Buffalonian.

Dr. W. D. Preston of Attica, who enlisted in the Medical Corps at the time of the Spanish-American War, has been

ordered to the medical training camp at Ft. Benjamin Harrison, Ind.

Dr. Obert Pollock of San Diego, called on us last month, on his way home from the A. M. A. meeting.

ABSTRACTS

Delivery Through Shell Wound. Saint, Goelinger, and Poiré record (*Journ. de méd. et de chir. prat.*, January 10, 1917) the case of a woman six months pregnant in whom delivery was brought about by a remarkable accident. She lived in a region occupied by the British and constantly bombarded, and was sitting at a window when a shell exploded in the street and wounded her in the lower abdomen. When brought to the hospital it was found that the belly was very painful and palpation was so difficult that it was impossible to determine the position of the fetus. An aperture of entry was found a little below and to the left of the umbilicus, and that of exit at a distance of nine centimetres from the left crural arch. On palpation it was found that the abdominal muscles were completely divided and that only a bridge of skin was left between the two apertures. The patient was bleeding abundantly through the vagina. The bridge of skin was cut through and laparotomy was performed. On the fundus there was found a wound of about five centimetres through which was seen the lumbar region of a fetus showing a small wound. The wound was enlarged, when the fetus was easily delivered; the pelvis, which was full of meconium and amniotic fluid, was cleaned, and the operation was completed by careful haemostasis and suture of the uterus.

The case ran a normal course and the mother made a rapid recovery. As for the child, which was left unattended to as it was believed to be dead, it soon began to cry and to show itself very much alive. It weighed 950 grams; but as no incubator was available it died in fifteen hours. The *British Medical Journal*, December 4, 1915, stated that Dr. Henrot had not long before given to the Paris Académie de Médecine an account of the bombardment of the hospital at Rheims. The maternity patients were by way of precaution moved to the cellars; one of the women was delivered by the action of a shell, which tore open the abdomen and uterus; the child had simply to be extracted.—(*Brit. M. J.*, Feb. 17, 1917.) *Med. Times*, June.

Aneurismal Obstruction of Vena Cava Superior With Special Reference to the Caval Syndrome. P. G. Skillern, Jr., *International Clinics*. The Caval Syndrome consists of enormous oedematous swelling of the head, neck, trunk, upper extremities, and marked obstruction of the veins. These clinical manifestations depend upon the formation of a collateral circulation, the extent of narrowing of the vena, and the size and extent of the pathologic process which causes the compression.

The first result of compression is obstruction of the venous blood in the entire territory of the vena cava superior. Through dilatation of all veins and capillaries in the territory of the upper half of the body an enormous cyanosis is often caused. The result of the obstructed outflow of venous blood while more blood is continually being brought to the part is the appearance of oedema. From the distribution of the oedema and its further advance one may draw diagnostic conclusions as to the site of compression. The lower half of the body is almost always free from oedema, but the latter appears here as well, when through overdilatation of the inferior vena cava obstruction in the tributaries of this vein results, or when through cardiac weakness oedema appears in the lower extremities and scrotum. Usually, however, even in this case the swelling of the upper half of the body remains in characteristic contrast to the very much slighter oedema of the lower. Not only the subcutaneous cellular tissue, but also the deeper parts are involved by the oedema, especially the mediastinum. Of importance also is oedematous infiltration of the mucous membranes, for thus oedema of the glottis may give ground for suddenly appearing death.

In the **Diagnosis** of compression of the superior vena cava but little difficulty is encountered. The diagnosis is based upon the obstructive signs appearing in the territory of the vena cava superior, i.e., upon the direction of a collateral circulation and the prominence and characteristic course of the veins belonging to it. In favor of aneurism as the cause are the appearance of a dull, pulsating area and the Oliver-Cardarelli symptom.

Bacteriologic Studies in Acute Rheumatic Fever. H. F. Swift and R. A. Kinsella, *Arch. of Int. Med.*, page 382, Vol. 19, made 85 blood cultures in 58 typic cases, before the administration of salicylates. Joint cultures were all negative. In 6 cases, streptococci of the viridans group were obtained, but there seemed to be no specific organism and the patient's blood did not show antibodies against the bacteria isolated.

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ABSTRACTS

Systemic Oidiomycosis, with Manifestations in Central Nervous System. Frederic J. Farnell and Samuel Starr of Providence, Boston M. & S. Jour., May 31, report a case beginning with a felon the terminal phalanx showing a moth-eaten appearance by X-ray. The pulmonary lesions suggested tuberculosis but no tubercle bacilli were found. The rather vaguely described symptoms suggested meningitis. Wassermann negative. An injection of salvarsan increased the symptoms. Pus was found in the right pleura and over the shin. Oidium and streptococcus viridans were isolated. Iodids gave relief. Stober believes the extra-corporeal habitat of the oidium to be rotten wood and leaves. Reference is made to a study by Stoddard and Cutler, monograph issued by Rockefeller Institute, of the relations of coccidioid granuloma, blastomycosis (oidiomycosis) and torula infection.

Volvulus of Caecum. Farganel and Brisset, Le Progres Med., May 19, page 170, report a case developing suddenly, with crises of pain and obstruction of faeces and gas but without initial vomiting. The caecum was found at necropsy twisted and in the left hypochondrium.

Retrovesical Hydatid Cyst. Potherat, Le Progres Med., May 19, page 170, reports a case in a soldier, aged 26, cured by operation. Attention was called to the cyst by sudden urinary retention, the diagnosis being enlarged prostate.

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3. Our cookers being sealed, the fine full flavor of the oats is kept intact.

4. The high heat thoroughly sterilizes the grain.

As H-O is the **only** oatmeal that is **steam-cooked**, you will readily understand why we suggest you specify it when you recommend oatmeal to your patients.

The H-O Company, Buffalo, N.Y.
Makers of H-O, Force and Presto



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Yearly Vol. 72 November 1916 Number 4

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the transition back to regular diet is always hard, especially at the period when the patient takes up solid food.

Good oatmeal has always been one of the best starch foods.

H-O is simply good oatmeal, steam-cooked at the mill.

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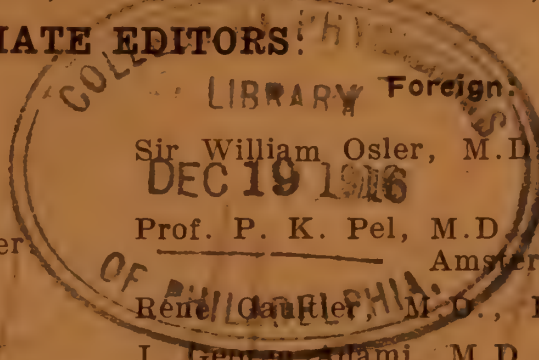
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There are constantly multiplying records of cases in which Panopepton is practically the only nourishment that can be tolerated and in which it proved adequate for the present requirements; and by its energising and sustaining effects, it, little by little, prepares the patient for taking other foods.

Have Panopepton kept in a cold place.

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This steam-cooking partially dextrinizes the starch and leaves the grains ready to yield their wealth of nourishment after only twenty minutes' additional cooking.



Think what a tempting and appetizing dish H-O makes on a gray winter morning? And think what it means to a convalescent who will relish it down to the last spoonful!

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Oatmeal

Four Reasons for Using H-O

- (1) H-O is nourishing, being rich, natural oats.
- (2) H-O provides bulk, being unrobbed, wholesome oatmeal.
- (3) H-O has flavor—always palatable.
- (4) H-O can hardly be undercooked, because we steam-cook it 2 hours at the Mills.

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Provides Bulk In a Palatable Form

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H-O is bound to be nutritious. It is rich in oats-nourishment, and the starch cells are broken down by our steam-cooking process. 20 minutes more in the kitchen completes the cooking process.

H-O has the bulk of ordinary oat-meals, and a new flavor besides.

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New York



Start their day with H-O

A dish of H-O at breakfast will promote peristaltic action in a natural, healthful way.

And H-O is so good to eat! It's a revelation in the flavor of real oats, thoroughly cooked.

Important as it is in the home, in the hospital H-O becomes a practical necessity. Put H-O in their diet and see how your patients appreciate it.

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Oatmeal

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—it may be because the stomach is keyed up to too rich a diet and lacks the stimulation of plain, nourishing food.

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H-O offers bulk in a palatable form.

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Clinical data illustrative of typical conditions
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this year, and
Wheat Foods
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Of course, we may be wrong. But we think that once you've tried "FORCE," you'll never again be satisfied to eat any other ready-to-serve cereal.

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Gray's Glycerine Tonic Comp.

(FORMULA DR. JOHN P. GRAY.)

The most important reasons for this new departure are briefly:

1. A convenient size for Rx.
2. To meet the conditions occasioned
by the "high cost of living."
3. To insure proper filling of your
prescriptions, and as a guard against
Substitution.

The regular 16 oz. size will be continued as heretofore.
We trust this innovation will be as cordially received by
Physicians as has the 16 oz. size for the past 25 years.

THE PURDUE FREDERICK COMPANY,

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A Serviceable Booklet.

A new edition of their brochure on ampules is announced by Parke, Davis & Co. The work contains seventy-six pages and embodies a complete list, with detailed descriptions, of the sixty-odd ready-to-use sterilized solutions in ampoules supplied by this house. It has an important chapter on hypodermatic medication in which the advantages of this method of administering certain soluble agents are clearly and convincingly outlined. We quote in this connection a significant paragraph: "When a drug suitable for the purpose is injected under the skin or into a vein, its physiologic and therapeutic effects are produced in the fullest degree, in the shortest time, and in the most characteristic form. It therefore follows that the therapeutic action of a drug may differ in degree and in kind, according as it is given by the stomach or placed more directly in the blood stream. The hypodermatic administration of certain drugs has developed very valuable therapeutic properties which their administration by mouth had not even suggested." A notable feature of the booklet is its therapeutic index, which converts it into a useful work of reference. Parke, Davis & Co. invite requests for this brochure from all physicians and surgeons.

We invite comparison

When you administer a hypodermatic tablet solution you want prompt action. You want a definite therapeutic result.

If you use a tablet of our manufacture you have assurance that both objects will be achieved.

HYPODERMATIC TABLETS

P. D. & Co.

are prepared from rigidly tested materials—materials that are guaranteed as to identity, purity and potency.

Hypodermatic Tablets, P. D. & Co., insure definite dosage. The content of each tablet is accurately determined. The medicament is uniformly subdivided by an unerring mechanical process, giving assurance that the active component is present in the precise amount indicated by the label.

Hypodermatic Tablets, P. D. & Co., are freely soluble. They dissolve completely in lukewarm water in a very few seconds.

Hypodermatic Tablets, P. D. & Co., are molded by a process that insures firmness. They are not liable to break or crumble in shipping or handling.

Test our hypodermatic tablets with those of any other manufacture. *We invite comparison.*

TUBES OF 25 TABLETS.

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